GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Introduction to Environmental Science, PG_00060832		
Field of study	Chemical Technology		
Date of commencement of studies	October 2025	Academic year of realisation of subject	2025/2026
Education level	first-cycle studies	Subject group	Obligatory subject group in the field of study
Mode of study	Full-time studies	Mode of delivery	at the university
Year of study	1	Language of instruction	Polish
Semester of study	1	ECTS credits	1.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department of Analytical Chemistry -> Faculty of Chemistry -> Wydziały Politechniki Gdańskiej		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Paweł Kubica	
	Teachers		

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	15.0	0.0	0.0	0.0	0.0	15

E-learning hours included: 0.0

Learning activity and number of study hours

Learning activity	Participation in didactic classes included in study plan	Participation in consultation hours	Self-study	SUM
Number of study hours	15	1.0	9.0	25

Subject objectives

Students are familiarized with the fundamentals about environmental issues.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_W03] Has knowledge in the field of chemical technology and environmental protection, including sustainable development, green chemistry, modern energy sources and the principles of minimizing the impact of industrial processes on the environment and work safety	The student knows the issues related to the impact of technological processes on the environment. Students can: - class technological solutions because of their environmental nuisance - to use in practice referred to technological solutions.	[SW1] Assessment of factual knowledge
[K6_U05] Is able to make a preliminary economic evaluation of engineering solutions and apply knowledge of the humanities and social sciences to solve problems.	Student is able to recognize dependencies between technological processes and understands its influence on the environment.	[SU2] Assessment of ability to analyse information
[K6_K02] is aware of the responsibility for his/her work and is ready to work in a team and share responsibility for common tasks.	Student understands the impact of undertaken technological activities on the environment. In addition, Student can use the principles of professional ethics.	[SK5] Assessment of ability to solve problems that arise in practice

Subject contents

Basic information about the environment and its components. Classifications sources of emissions to the environment due to: - Sources of emissions: - Nature of human activity - The range of the impact of emission sources. Classification of processes due to: - Degree of impact to the environment - How to eliminate the impact of technological systems on the environment. Basic information on how to waste gas, waste water treatment and utilization of by-products and waste. Presentation of the basic processes and responses, which are subject to contamination at the stage of environmental emissions. Discussion of the basic techniques of environmental protection against pollution (protection of restoration, remediation and prevention technologies, emissions). The importance of the various elements of the environment for technological processes.

Prerequisites and co-requisites

Knowledge of the fundamentals of chemistry

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
final test	60.0%	100.0%

Recommended reading

Basic literature	Not included. The course is in polish.
Supplementary literature	Not included. The course is in polish.

	eResources addresses	
Example issues/ example questions/ tasks being completed	1. Atmospheric air: sources of pollution, transport routes of chemical and physical pollutants.2. The greenhouse effect and greenhouse gases, the potential to create the greenhouse effect.3. Water and water pollution.4. Pollution what is it? What could it be? How to avoid it and what are the sources of pollution (general division).5. Typical forms of organic contamination in the ground.	
Work placement	Not applicable	

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