University of Gdańsk

Subject card

Subject name and code	Environmental aspects in chemical enterprise, PG_00080826		
Field of study	Chemical Business		
Date of commencement of studies	October 2024	Academic year of realisation of subject	2024/2025
Education level	Bachelor's 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	2	ECTS credits	1.0
Learning profile	academic	Assessment form	credit
Conducting unit	Department of Environmental Technology -> Faculty of Chemistry -> Rector		
Name and surname of lecturer (lecturers)	Subject supervisor	dr Anita Romanowska	
	Teachers	prof. dr hab. Adam Lesner dr Natalia Gruba	

Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	15.0	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	2.0	8.0	25

Subject objectives	The aim of education is to familiarize the student with selected environmental aspects applicable in Poland (duties, costs, voluntary commitments to the environment) in chemical enterprises with different production profiles

Learning outcomes

Course outcome	Subject outcome	Method of verification
[BCHINŻ_U08] Uses the chemical nomenclature and engineering terminology properly.	Uses the chemical terminology to the extent necessary to present the content of the subject	[SU2] presentation/project/paper/ report [SU4] test/exam - oral or written
[BCHINŻ_W07] Describes the construction and operating principles of basic scientific, technological and control-measuring apparatus.	Describes the structure and operation of equipment used in chemical plants	[SW4] test/exam - oral or written [SW2] presentation/project/paper/ report
[BCHINŻ_W06] Enumerates basic unit processes and describes issues in the field of technology and chemical engineering.	Describes processes used in industrial chemical plants	[SW4] test/exam - oral or written [SW2] presentation/project/paper/ report
[BCHINŻ_W01] Describes the relationship between the economy and the functioning of the chemical industry.	Knows and correctly interprets basic legal acts regarding environmental protection in an industrial plant	[SW4] test/exam - oral or written [SW2] presentation/project/paper/ report
[BCHINŻ_U05] Evaluates the usefulness and functioning of existing engineering and technical solutions as well as research and measurement methods in the chemical industry.	Lists existing engineering and technical solutions as well as research and measurement methods used in industrial plants	[SU2] presentation/project/paper/ report [SU4] test/exam - oral or written
[BCHINŻ_W05] Describes the life cycle of devices, facilities and technical systems as well as modern environment-friendly technical solutions.	Lists the obligations and voluntary actions of chemical factories towards the environment	[SW4] test/exam - oral or written [SW2] presentation/project/paper/ report

Subject contents

Classification of the chemical industry. Environmental pollution, including: Greenhouse gases and substances that deplete the ozone layer; Inorganic gases air pollution; Total suspended dust and its fractions PM10 and PM2.5; Environmental pollution with metallic elements and metalloids; Non-methane volatile organic compounds (NMVOCs); Persistent organic pollutants (POPs); Plastics and microplastics; odors; Water and sewage pollution. Environmental protection strategies. Bodies controlling the impact of industry on the environment. Environmental protection instruments. Environmental fees. The REACH system i.e. the rules for producing, placing on the market and using chemicals. Safety data sheets for chemical substances. Environmental protection in the chemical industry. Environmental aspects of selected technological processes (technology diagrams). Analysis of environmental aspects of selected chemical industry enterprises. based on environmental reports.

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
presentation	51.0%	50.0%
test with open questions	51.0%	50.0%

Recommended reading

Basic literature	Materials prepared by the lecturer
Supplementary literature	Monographic works provided by assistants leading classes
eResources addresses	

Example issues/ example questions/ tasks being completed

Work placement

Not applicable

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