GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Environmental management systems, PG_00057708						
Field of study	Green Technologies						
Date of commencement of studies	October 2023		Academic year of realisation of subject	2026/2027			
Education level	first-cycle studies		Subject group	Obligatory subject group in the field of study Subject group related to scientific research in the field of study			
Mode of study	Full-time studies		Mode of delivery	at the university			
Year of study	4		Language of instruction	Polish			
Semester of study	7		ECTS credits	3.0			
Learning profile	general academic profile		Assessment form	exam			
Conducting unit	Department of Process Engineering and Chemical Technology -> Faculty of Chemistry -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		prof. dr hab. inż. Anna Zielińska-Jurek				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	0.0	0.0	0.0	30
	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	30		5.0	40.0		75
Subject objectives	The course aims to provide knowledge of management systems, quality and environmental management, management methods, tools, and instruments. Basic knowledge of ISO 9001 and 14001 standards. Quality audits, environmental audits, and quality costs.						

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_K04] is ready to think and act in a creative and enterprising way, to negotiate, work in a team, assuming different roles	The student can prepare an environmental audit and an environmental policy.	[SK2] Assessment of progress of work
[K6_U03] is able to use information and communication technologies relevant to the common tasks of engineering, is able to use known methods and mathematical-physical models to describe and explain phenomena and chemical processes	The student can identify and comply with legal provisions regarding environmental management.	[SU1] Assessment of task fulfilment [SU3] Assessment of ability to use knowledge gained from the subject
[K6_K06] has awareness of the importance of non-technical aspects and effects of engineering activities, including its impact on the environment and the associated responsibility for decisions.	The student is aware of the impact of industrial processes on the environment and methods of preventing contamination.	[SK2] Assessment of progress of work
[K6_U04] capable of formulating and solving design tasks in the field of environmental technology to recognize their non-technical aspects, including environmental, economic and legal. Is capable of applying the principles of occupational health and safety. Is able to make initial assessment of engineering solutions and actions	The student is able to: 1. Recall and discuss basic concepts of environmental management 2. Define, evaluate, and propose solutions to problems	[SU3] Assessment of ability to use knowledge gained from the subject [SU1] Assessment of task fulfilment
[K6_W05] has an elementary knowledge of the fundamental concepts and problems of quality management, the general principles of creation and development of forms of individual entrepreneurship, application of the principles of work organization and integrated management, basic principles of quality control and analysis results; knowledge of basic legal aspects relating to the management of chemicals with particular emphasis on compounds polluting the environment and business, knows and understands the basic concepts and principles of the protection of industrial property and copyright and the need for management of intellectual property.	The student possesses the knowledge necessary to assess environmental hazards, existing quality control methods, and relevant tools. The student is proficient in the ISO 14001 standard.	[SW1] Assessment of factual knowledge [SW3] Assessment of knowledge contained in written work and projects

Subject contents

Course content – lecture
Environmental Management. Origins and Definitions

Environmental Management Systems Environmental

Review Environmental Management System according to ISO 14001

Scope of ISO 14001 Terms and Definitions.

ISO 14001 Requirements for EMSs (Environmental Policy, Planning, Implementation and Operation, Verification, Management Review).

Environmental Audits Environmental Impact Assessment, including the Environmental Impact Assessment Report

Prerequisites and co-requisites

Assessment methods and criteria

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

Recommended reading	Basic literature	P. F. Drucker Praktyka zarządzania H. Drummond W pogoni za jakością A. Chauvet Metody zarządzania przewodnik J. Brilaman Nowoczesne koncepcje i metody zarządzania Norma ISO 14001
	Supplementary literature	ISO 9001
	eResources addresses	
Example issues/ example questions/ tasks being completed		
Practical activites within the subject	Not applicable	

Document generated electronically. Does not require a seal or signature.