



Subject card

Subject name and code	Environmental management systems, PG_00057708						
Field of study	Systemy zarządzania środowiskiem						
Date of commencement of studies	October 2022		Academic year of realisation of subject		2025/2026		
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 -> Wydział Politechniki Gdańskiej						
Name and surname of lecturer (lecturers)	Subject supervisor		prof. dr hab. inż. Anna Zielińska-Jurek				
	Teachers		prof. dr hab. inż. Anna Zielińska-Jurek				
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						
	eNauczanie source addresses: Moodle ID: 1290 Systemy zarządzania środowiskiem https://enauczanie.pg.edu.pl/2025/course/view.php?id=1290						
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_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.	[SW3] Ocena wiedzy zawartej w opracowaniu tekstowym i projektowym [SW1] Ocena wiedzy faktograficznej
	[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	[SU1] Ocena realizacji zadania [SU3] Ocena umiejętności wykorzystania wiedzy uzyskanej w ramach przedmiotu
	[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] Ocena postępów pracy
	[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.	[SU3] Ocena umiejętności wykorzystania wiedzy uzyskanej w ramach przedmiotu [SU1] Ocena realizacji zadania
	[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] Ocena postępów pracy
Subject contents	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 activities within the subject	Not applicable	

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