



Subject card

Subject name and code	Environmental Management Systems - Team Project, PG_00067376						
Field of study	Engineering Management						
Date of commencement of studies	October 2025		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	2		Language of instruction		Polish		
Semester of study	4		ECTS credits		6.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department Of Management Engineering And Quality -> Faculty Of Management And Economics -> Wydziały Politechniki Gdańskiej						
Name and surname of lecturer (lecturers)	Subject supervisor						
	Teachers						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	25.0	20.0	0.0	75
	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	75		5.0		70.0	150
Subject objectives	Designs management systems using applicable legal regulations, taking into account the impact of the company's operations on the broadly understood environment						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_W01] understands and comprehends the conditions of processes occurring in the analyzed systems at an advanced level and selects appropriate methods for their solution, taking into account the complex relationships between the analyzed phenomena.		applies the principles of sustainable development in the design of enterprise management systems		[SW1] Assessment of factual knowledge		
	[K6_K02] is prepared to make competent and ethical decisions to create and maintain economic, social, and environmental values, demonstrating entrepreneurial actions.		is able to co-develop project solutions aimed at balancing business and environmental goals, making decisions with consideration of their long-term impact on the organization and its surroundings.		[SK5] Assessment of ability to solve problems that arise in practice		
	[K6_U03] collaborates with others in solving interdisciplinary problems.		designs and implements pro-ecological management systems by performing tasks as a member or team leader		[SU3] Assessment of ability to use knowledge gained from the subject		

Subject contents	<p>LECTURE</p> <p>Basic concepts and terminology in the field of management and environmental protection. Origins and foundations of sustainable economic development</p> <p>UN Sustainable Development Goals (SDGs). Environmental management models, elements, relationships</p> <p>History and review of the concept of a systemic approach to environmental management</p> <p>Environmental management system compliant with PN-EN ISO 14001. Genesis. Structure of type HLS of ISO Type A standards</p> <p>The context of the organization. Leadership</p> <p>Planning. Support</p> <p>Operations</p> <p>Performance evaluation</p> <p>Improvement</p> <p>Implementation of an environmental management system according to ISO 14001</p> <p>EMS audits. EMS Certification</p> <p>Other standards for EMS in the ISO 14000 family. Management system compliant with the EMAS</p> <p>Regulation</p> <p>Energy management system compliant with EN ISO 50001</p> <p>Benefits of EMS. Life Cycle Assessment (LCA), creation of an eco-balance, factors and sources of information obtained</p> <p>EMS in integrated management systems</p> <p>PROJECT</p> <p>Sustainable development in the context of pro-ecological activities of a selected company. Identification of the achievements of selected organizations in areas corresponding to the pro-ecological objectives of the UN regarding the UA. Use of ISO 26000</p> <p>Design of EMS components according to ISO 14001 for the selected organization for the nst elements of the EMS: Environmental aspects; Risk assessment. Significant environmental aspects; Objectives and tasks in the field of the Environment; Operational management and performance evaluation; Improvement in the context of the World Improvement Environment</p> <p>Planning and conducting an internal audit of the EMS for a selected organization and designing improvement activities (follow-ups): development of an audit plan; preparation of a checklist for relevant EMS areas; reporting non-conformities and identifying improvement actions</p>		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Project	60.0%	50.0%
	Exam	60.0%	50.0%
Recommended reading	Basic literature	Grudowski P., Hamrol A., Zymonik Z. Zarządzanie jakością i bezpieczeństwem, PWE Warszawa 2013 Grudowski P., Wiśniewska M. Z., Kultura jakości, doskonałości i bezpieczeństwa, CeDeWu, Warszawa 2019 Kowal E., Kucińska-Landwójtowicz A., Misiólek A., Zarządzanie środowiskowe, PWE, Warszawa, 2013	
	Supplementary literature	Grudowski P., Jakość, środowisko i BHP w systemach zarządzania, OPO-AJG, 2004 Grudowski P., Pochyluk R., Szymański J., Zasady wdrażania systemu zarządzania środowiskowego zgodnego z wymaganiami normy ISO 14001, Eko-Konsult, 1999	
	eResources addresses	Adresy na platformie eNauczanie:	
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		

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