



## Subject card

Subject name and code	Supervising safety in the company, PG_00059208						
Field of study	Mechatronics						
Date of commencement of studies	February 2023		Academic year of realisation of subject		2023/2024		
Education level	second-cycle studies		Subject group				
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		2.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Institute of Manufacturing and Materials Technology -> Faculty of Mechanical Engineering and Ship Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Sławomir Szymański				
	Teachers		dr inż. Sławomir Szymański				
Lesson types and methods of instruction	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		0.0		0.0	30
Subject objectives	Acquiring knowledge in the field of threats and methods of safety assessment in the workplace. The ability to determine the degree of risk at the workplace.. The ability to draw up a safety management plan in the workplace						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K7_K04] is aware of importance of professional and creative performance, obeying the ethical rules and respecting opinion and cultural diversity						
	[K7_K03] is able to cooperate and work in group, taking various roles and choosing priorities that lead to perform tasks						
	[K7_U71] is able to apply knowledge from humanistic, social, economic or legal sciences in order to solve problems						
	[K7_W08] has a knowledge essential for understanding social, economic, law and non-technical aspects of engineering and include it in engineering practice						
	[K7_K71] is able to explain the need to apply knowledge from humanistic, social, economic or legal sciences in order to function in a social environment		The student is able to apply knowledge in the field of employee protection against hazards at the workplace		[SK2] Assessment of progress of work		

Subject contents	Functional safety and work safety. Human error and its consequences in technology and industry. Rules of maintaining safety at work. Methods of occupational risk assessment in industry: methods according to PN-N-18000: three-stage and five-stage, Risk Score method, accident risk assessment procedures  Development of a security plan in an industrial enterprise. Management functions in relation to safety in the enterprise: planning, organizing, motivating and controlling. Safety management and quality management in an enterprise. Building a management system work safety in the enterprise. Organizational methods of increasing safety in the enterprise. IT techniques supporting the process of risk assessment, analysis and documentation.								
Prerequisites and co-requisites									
Assessment methods and criteria	<table><tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr><tr><td>test</td><td>60.0%</td><td>100.0%</td></tr></table>	Subject passing criteria	Passing threshold	Percentage of the final grade	test	60.0%	100.0%		
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Recommended reading	Basic literature	1. Lis T., Nowacki K.: Zarządzanie bezpieczeństwem w zakładzie przemysłowym, Wydawnictwo Politechniki Gliwickiej, Gliwice 2005 2. Karczewski J.T.: Systemy zarządzania bezpieczeństwem pracy. ODDK Gdańsk 2001							
	Supplementary literature	1. Kosiński R., Grabowski A. "Zastosowanie sztucznych komórkowych sieci neuronowych w inteligentnych systemach bezpieczeństwa", CiOP-PIB 2008 2. Strawiński T. "Zapewnienie bezpieczeństwa użytkowania maszyn metodami sterowania", CiOP-PIB 2008 3. Korzeniowski L. F. Podstawy nauk o bezpieczeństwie. Zarządzanie bezpieczeństwem, Wyd. Difin, Warszawa 2012							
	eResources addresses	Adresy na platformie eNauczanie:							
Example issues/ example questions/ tasks being completed	1. Determine occupational risks using the Risk score method for a selected workplace (e.g. milling machine operator) 2. List the dangers at the selected workplace (e.g. welder's position) 3. List and characterize the basic methods of risk assessment in the position. 4. List and characterize the sources of threats in a selected industry or in a selected process. 5. Characterize the levels and areas of systemic safety management for the selected one position or process.								
Work placement	Not applicable								