



## Subject card

Subject name and code	Ergonomics and security management, PG_00059504						
Field of study	Management and Production Engineering						
Date of commencement of studies	February 2024		Academic year of realisation of subject			2024/2025	
Education level	second-cycle studies		Subject group			Optional subject group 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	1		Language of instruction			Polish	
Semester of study	2		ECTS credits			3.0	
Learning profile	general academic profile		Assessment form			assessment	
Conducting unit	Institute of Ocean Engineering and Ship Technology -> Faculty of Mechanical Engineering and Ship Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Anna Dembicka				
	Teachers						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	15.0	0.0	0.0	0.0	45
	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	45		6.0		24.0	75
Subject objectives	The aim of the course is to deepen knowledge about the latest trends in the development of ergonomics, as well as to show the economic aspects of occupational safety.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[K7_U05] is able - in accordance with a given specification, taking into account non-technical aspects - to design a complex device, object, system or process related to the studied engineering discipline, and to implement this project - at least in part - using appropriate methods, techniques and tools, if necessary, adapting to it the purpose of existing or developing new tools	The student has acquired the knowledge and appropriate skills needed to implement engineering projects, using the appropriate methods, techniques and tools.	[SU5] Assessment of ability to present the results of task [SU4] Assessment of ability to use methods and tools [SU3] Assessment of ability to use knowledge gained from the subject [SU1] Assessment of task fulfilment
	[K7_U06] can - when formulating and solving engineering tasks - see their systemic aspects and social conditions, environmental, economic, legal and others	The student notices socio-economic and legal aspects in the course of formulating and solving engineering tasks.	[SU3] Assessment of ability to use knowledge gained from the subject [SU2] Assessment of ability to analyse information [SU1] Assessment of task fulfilment
	[K7_W05] has the knowledge necessary to understand social, economic, legal and other non-technical conditions of activity engineering, including copyright.	The student has acquired knowledge in the field of social, economic and legal sciences, including copyright law.	[SW3] Assessment of knowledge contained in written work and projects
	[K7_K04] is aware of the social role of the university graduate, and especially understands the need to formulate and communicate to society - incl. through the mass media - information and opinions on technological achievements and other aspects of an engineer's activity; makes efforts to provide such information and opinions in a generally comprehensible manner, justifying different points of view	The student is able to provide information and opinions on the achievements of technology and other aspects of the engineer's activity in a generally understandable way, taking into account various points of view.	[SK3] Assessment of ability to organize work [SK1] Assessment of group work skills [SK4] Assessment of communication skills, including language correctness
[K7_W01] knows and understands to a greater extent selected issues in the field of management and quality sciences and mechanical engineering, their location in the field of social sciences and engineering and technical sciences, as well as relationships with related disciplines, and sees the possibility of applying the knowledge in practice	The student has the ability to combine issues in the field of management science and mechanical engineering with the area of social sciences and engineering and technical sciences.	[SW3] Assessment of knowledge contained in written work and projects [SW2] Assessment of knowledge contained in presentation	
Subject contents	<p>- ergonomic characteristics- the latest trends in the development of ergonomics (humanization of work, ergonomics and the quality of work, ergonomics in the design of modern workstations, economic aspects of ergonomics, aesthetic and impression aspects in ergonomics)- occupational safety, occupational safety culture, occupational safety management- harmful factors in selected work environments, accidents, compensation and insurance- ergonomics and work safety in the light of European Union directives- corporate finance management, financial risk of a production company, financial risk assessment, elements of the statistical theory of risk-taking decisions (expected value of profit/loss)</p>		
Prerequisites and co-requisites	Economic analysis, Fundamentals of economics and management		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	passing the lecture - presentation + colloquium 1 and colloquium 2	60.0%	50.0%
	exercises - final project (components determined by the teacher)	60.0%	50.0%

Recommended reading	Basic literature	<p>J. Ejdys, U. Kobylińska, A. Lulewicz-Sas, Zintegrowane systemy zarządzania jakością, środowiskiem i bezpieczeństwem pracy, Oficyna Wydawnicza Politechniki Białostockiej, Białystok 2012.</p> <p>P. Lubaś Piotr, Diagnoza ergonomicznych czynników ryzyka. Szczecin: Państwowa Inspekcja Pracy 2010.</p> <p>W. Ł. Nowacka, Ergonomia i ergonomiczne projektowanie stanowisk pracy. Warszawa: Politechnika Warszawska 2010.</p> <p>W. Ł. Nowacka, Zagrożenia człowieka w środowisku pracy. Zagrożenia chemiczne biologiczne i pyłowe. Warszawa: Politechnika Warszawska 2011.</p> <p>W. Oleszak, 2012. Kultura bezpieczeństwa w środowisku pracy. Edukacja Humanistyczna 1(26): 181189.</p> <p>Zarządzanie ryzykiem. Przegląd wybranych metod, pod red. D. Wróblewskiego, Wydawnictwo CNBOP-PIB, Józefów 2015.</p>
	Supplementary literature	<p>L. Kozioł, A. Wojtowicz. 2016. Wybrane praktyki zarządcze a dobrostan pracownicy. Zeszyty Naukowe Politechniki Poznańskiej. Organizacja i Zarządzanie 71: 165177.</p> <p>K. Polek-Duraj, 2017. Jakość pracy determinantą jakości życia jednostki (studium przypadku). Studia Ekonomiczne. Zeszyty Naukowe Uniwersytetu Ekonomicznego w Katowicach 309: 133142.</p>
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed	Risk Matrix, Setting the Context, Evaluation (Identification Analysis Evaluation), Risk Management, Communication and Consultation, Monitoring and Review, Risk Decision Making, Prospect Theory.	
Work placement	Not applicable	

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