



Subject card

Subject name and code	Work Safety and Ergonomics, PG_00040186						
Field of study	Mechanical Engineering, Mechanical Engineering						
Date of commencement of studies	October 2020	Academic year of realisation of subject	2021/2022				
Education level	first-cycle studies	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	2	Language of instruction	English				
Semester of study	4	ECTS credits	1.0				
Learning profile	general academic profile	Assessment form	assessment				
Conducting unit	Department of Machine Design and Vehicles -> Faculty of Mechanical Engineering and Ship Technology						
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Ryszard Woźniak					
	Teachers	dr inż. Ryszard Woźniak					
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	0.0	0.0	0.0	15
	E-learning hours included: 0.0						
Work Safety and Ergonomics - L-15/C-0/L-0/P-0, Design and Production Engineering, WIMiO, undergraduate studies, engineering studies, full-time (stationary) studies, 2021/2022, se04, (M:32013W0), summer semester 2021/2022 - Moodle ID: 18044 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=18044							
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	15	3.0	7.0	25		
Subject objectives	Gaining basic knowledge of ergonomics and occupational health and safety.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	K6_U11	Student explains the concepts of ergonomics. Describes its goals and area of application. Defines the human - machine - environment system. Designs the human working environment taking into account the principles of design. Uses various human models. It presents the safety and reliability of the human - machine - environment system. Shows machine information. Assessment of ability to solve.	[SU1] Assessment of task fulfilment
	[K6_K02] understands ex-technical aspects of the activities included in the profession of a mechanical engineer, among others its social impact and influence on the condition of an environment; is aware of the responsibility connected with the decisions made in connection with engineering activity	Student explains the concepts of ergonomics. Describes its goals and area of application. Defines the human - machine - environment system. Designs the human working environment taking into account the principles of design. Uses various human models. It presents the safety and reliability of the human - machine - environment system. Shows machine information. Assessment of ability to solve.	[SK2] Assessment of progress of work [SK5] Assessment of ability to solve problems that arise in practice
	K6_W12	Student explains the concepts of ergonomics. Describes its goals and area of application. Defines the human - machine - environment system. Designs the human working environment taking into account the principles of design. Uses various human models. It presents the safety and reliability of the human - machine - environment system. Shows machine information. Assessment of ability to solve.	[SW3] Assessment of knowledge contained in written work and projects
Subject contents	Definitions of ergonomics, their purposes and application area. Description of man - machine - environment configuration. Conception of balanced development. Environmental management system. Model of man and it's characteristics. Man capabilities versus industrial processes. Environment of working man - circle conditions. Designs principles of environment of working man. Safety and reliable man - machine - environment configuration. Information acquisition of machines.		
Prerequisites and co-requisites	Knowledge of Physics (High School level).		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	End test	50.0%	100.0%
Recommended reading	Basic literature	1. Koradecka D.: "Bezpieczeństwo pracy i ergonomia", tom I i II. CIOP, Warszawa, 1997. 2. Hempel L.: "Człowiek i maszyna - techniczny model współdziałania", materiały własne, 1984. 3. Wykowska M.: "Ergonomia", Wyd Akademii Górniczo-Hutniczej w Krakowie, Kraków, 1994.	
	Supplementary literature	No requirements	
	eResources addresses		
Example issues/ example questions/ tasks being completed	1) definitions of ergonomics 2) human models		
Work placement	Not applicable		