GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Work Safety and Ergonomics, PG_00040186						
Field of study	Mechanical Engineering						
Date of commencement of studies	October 2025		Academic year of realisation of subject	2026/2027			
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 -> Wydziały Politechniki Gdańskiej						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Ryszard Woźniak				
	Teachers						
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						
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_W12] possesses basic knowledge necessary to understand the ex-technical conditions of engineering activity, possesses basic knowledge on management, including quality management and running commercial enterprise, within the range of protection of intellectual property and patent law; knows general principles of creating and developing forms of individual entrepreneurship and basic HSE rules applicable to machine industry	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
[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.	[SK5] Assessment of ability to solve problems that arise in practice [SK2] Assessment of progress of work
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

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	Adresy na platformie eNauczanie:

Example issues/ example questions/ tasks being completed

1) definitins of ergonomics

2) human models

Work placement

Not applicable

Document generated electronically. Does not require a seal or signature.