GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	HSE and Ergonomics in Work, PG_00055867		
Field of study	Power Engineering		
Date of commencement of studies	October 2024	Academic year of realisation of subject	2024/2025
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	1	Language of instruction	English
Semester of study	1	ECTS credits	1.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Institute of Mechanics and Machine Design -> 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						

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	1.0	9.0	25

Subject objectives	Acquiring basic knowledge in the field of ergonomics and occupational health and safety.

<table>
<tr><td>Learning outcomes</td><td>
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<tr><th>Course outcome</th><th>Subject outcome</th><th>Method of verification</th></tr>
<tr><td>[K6_K02] is able to work in a group taking different roles in it, can think and act in an entrepreneurial way, is aware of responsibility for their own work and responsibility for teamwork</td><td>The student explains the concepts of ergonomics. It describes its goals and area of application. It is defined by the human - machine - environment system. Designs the human work environment taking into account the design principles. He uses various human models. It presents the safety and reliability of the human - machine - environment system. It presents the information ability of machines.</td><td>[SK2] Assessment of progress of work
[SK5] Assessment of ability to solve problems that arise in practice</td></tr>
<tr><td>[K6_K03] is able to react in emergency situations, threats to health and life when using energy devices, is aware of the impact of engineering activities on the environment</td><td>The student explains the concepts of ergonomics. It describes its goals and area of application. It is defined by the human - machine - environment system. Designs the human work environment taking into account the design principles. He uses various human models. It presents the safety and reliability of the human - machine - environment system. It presents the information ability of machines.</td><td>[SK2] Assessment of progress of work
[SK5] Assessment of ability to solve problems that arise in practice</td></tr>
<tr><td>[K6_U03] has the preparation necessary to work in an industrial environment, applies the principles of occupational health and safety, can perform diagnostics of the regulation system of a simple energy facility</td><td>The student explains the concepts of ergonomics. It describes its goals and area of application. It is defined by the human - machine - environment system. Designs the human work environment taking into account the design principles. He uses various human models. It presents the safety and reliability of the human - machine - environment system. It presents the information ability of machines.</td><td>[SU5] Assessment of ability to present the results of task
[SU1] Assessment of task fulfilment</td></tr>
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<tr><td>Subject contents</td><td>Definitions of ergonomics, its subject, purpose and application. Description of the human-machine system environment. The concept of sustainable development. Environmental management systems. Human model and its characteristics. Human possibilities and industrial processes. Human work environment - material conditions. Principles of human work environment design. Safety and reliability of the human - machine - environment system. Informativeness of machines.</td></tr>
<tr><td>Prerequisites and co-requisites</td><td></td></tr>
<tr><td>Assessment methods and criteria</td><td>
<table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>Final test</td><td>50.0%</td><td>100.0%</td></tr>
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<tr><td>Recommended reading</td><td>
<table>
<tr><td>Basic literature</td><td>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.</td></tr>
<tr><td>Supplementary literature</td><td>-</td></tr>
<tr><td>eResources addresses</td><td>Adresy na platformie eNauczanie:
Bezpieczeństwo pracy i ergonomia - W-15/Ć-0/L-0/P-0, WIMiO, ENERGETYKA, I st., sem. 01, stacjonarne, (PG_00055867), semestr zimowy 2024/2025 - Moodle ID: 38996
https://enauczanie.pg.edu.pl/moodle/course/view.php?id=38996</td></tr>
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<tr><td>Example issues/ example questions/ tasks being completed</td><td>1) definitions of ergonomics 2) human models</td></tr>
<tr><td>Work placement</td><td>Not applicable</td></tr>
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