GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Technical Ergonomics, PG_00068036		
Field of study			
Date of commencement of studies	October 2025	Academic year of realisation of subject	2026/2027
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	2	Language of instruction	Polish
Semester of study	4	ECTS credits	4.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department Of Informatics In Management -> Faculty Of Management And Economics -> Wydziały Politechniki Gdańskiej		
Name and surname of lecturer (lecturers)	Subject supervisor		
	Teachers		

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	30.0	0.0	0.0	15.0	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	5.0	50.0	100

Subject objectives

Assesses work processes in the context of meeting ergonomic requirements and proposes recommendations to minimize the perceived irregularities

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_K02] is prepared to make competent and ethical decisions to create and maintain economic, social, and environmental values, demonstrating entrepreneurial actions.	can communicate the importance of ergonomic technical solutions clearly to various stakeholders, considering their impact on efficiency, employee well-being, and corporate social responsibility	[SK4] Assessment of communication skills, including language correctness [SK3] Assessment of ability to organize work
[K6_U03] collaborates with others in solving interdisciplinary problems.	is able to collaborate in a team with representatives of various fields in designing and implementing ergonomic technical solutions, integrating engineering, organizational, and social knowledge	[SU5] Assessment of ability to present the results of task [SU4] Assessment of ability to use methods and tools
[K6_W07] knows and understands advanced methods for analyzing the management process in technical, legal, economic, financial, and social contexts.	has knowledge of methods for evaluating and analyzing ergonomic solutions in work process management, taking into account their technical, economic, and social implications	[SW3] Assessment of knowledge contained in written work and projects

<table>
<tr><td>Subject contents</td><td>Ergonomics - introduction. Ergonomic system: man - technology environment
Analysis of physical load at workstations
Reduction of physical loads at workstations
Workspace design
Spatial requirements for typical workplaces
Ergonomics and organization of computer-aided work
Mental strain at workstations - shaping the content of work
Methods of assessing the mental burden at workstations
Analysis of the factors of the material working environment (1). Analysis of lighting conditions and electromagnetic field at workstations
Analysis of the factors of the material working environment (2). Analysis of acoustic conditions, vibrations, microclimate and air pollution at workplaces
Methods of occupational risk assessment at workstations
Systemic management of occupational safety in the enterprise
Employer's obligations to ensure safe working conditions
Economic aspects of security management in an enterprise
Macroergonomics - shaping work organization and employer-employee relations</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>Project</td><td>60.0%</td><td>50.0%</td></tr>
<tr><td>Exam</td><td>60.0%</td><td>50.0%</td></tr>
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<tr><td>Recommended reading</td><td>
<table>
<tr><td>Basic literature</td><td>• Górska E. (2007). Ergonomia - projektowanie, diagnoza, eksperymenty. Wyd. Politechnika Warszawska, Warszawa.
• Wojsznis M. (2018). Ergonomia - ocena stanowisk pracy. Wydawnictwo: Politechnika Poznańska, 2018</td></tr>
<tr><td>Supplementary literature</td><td>Wykowska M. (2010). Ergonomia. Wyd. AGH, Kraków</td></tr>
<tr><td>eResources addresses</td><td>Adresy na platformie eNauczanie:</td></tr>
</table>
</td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td>Methods of assessing physical load at workplaces
Principles of shaping software ergonomics during an IT project
Principles of proper organization of work with screen monitors</td></tr>
<tr><td>Work placement</td><td>Not applicable</td></tr>
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