GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Industrial Revolution, PG_00060398		
Field of study	Mechanical Engineering		
Date of commencement of studies	February 2023	Academic year of realisation of subject	2023/2024
Education level	second-cycle studies	Subject group	
Mode of study	Part-time studies	Mode of delivery	at the university
Year of study	2	Language of instruction	Polish
Semester of study	3	ECTS credits	2.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Zakład Systemów i Urządzeń Energetyki Cieplnej -> Institute of Energy -> Faculty of Mechanical Engineering and Ship Technology		
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. inż. Michał Klugmann	
	Teachers	dr hab. inż. Michał Klugmann	

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	18.0	0.0	0.0	0.0	0.0	18

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	18	0.0	0.0	18

Subject objectives

Discussion of the industrial revolution as a process that shaped the modern world - that is, the period from the eighteenth century to modern times, against the background of the timeline of the universal history of technology. Discussion of selected fields of technology developed in this period, profiles of technical people and selected inventions. Explanation of the role of technical progress as a key factor in the development of humanity. Discussion of controversies, doubts and ethical and ecological aspects of progress.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K7_U71] is able to apply knowledge from humanistic, social, economic or legal sciences in order to solve problems	The student is able to perform basic activities related to the inventory and formal protection of historical objects. He knows the principle of operation and the historical context of the basic objects of technology to the extent that allows them to be classified and described.	[SU5] Assessment of ability to present the results of task
[K7_K71] is able to explain the need to apply knowledge from humanistic, social, economic or legal sciences in order to function in a social environment	The listener is aware of the importance of historical heritage for the development of both the technology itself and a wider awareness - ethical, ecological, aesthetic. He is aware of the importance of the humanistic foundation in the work of an engineer.	[SK5] Assessment of ability to solve problems that arise in practice
[K7_W71] has general knowledge in humanistic, social, economic or legal sciences, including their fundamentals and applications	The student knows the history of the basic branches of technology encountered in everyday life. He is aware of the value of historical objects, is able to place them in the chronology of development.	[SW3] Assessment of knowledge contained in written work and projects

<table>
<tr><td>Subject contents</td><td>1. Introduction to the general history of technology, from the Stone Age to the end of the 17th century (2 hours).

2. Industrial revolution - genesis, pillars, stages, the most important inventions, people of the era, effects (2 hours).

3. 19th century (2 hours).

4. 20th century (2 hours).

5. Gdańsk against the backdrop of the industrial revolution, Gdańsk University of Technology as the heritage and icon of the industrial revolution (4 hours).

6. History of selected fields of technology: construction and architecture, photography, cinematography, television, water supply and sewage systems, computers, nuclear energy (6 hours).</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>Essay</td><td>56.0%</td><td>100.0%</td></tr>
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<tr><td>Recommended reading</td><td><table>
<tr><td>Basic literature</td><td>No english literature yet.</td></tr>
<tr><td>Supplementary literature</td><td>[1] Act of 23 July 2003 on the protection and care of monuments, Journal of Laws 2003 No. 162 item 1568</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>1. Description of the history of the selected field of technology.

2. Biography of a selected person associated with the development of technology.</td></tr>
<tr><td>Work placement</td><td>Not applicable</td></tr>
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