GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Industrial Revolution, PG_00060397		
Field of study	Mechanical and Naval Engineering		
Date of commencement of studies	October 2024	Academic year of realisation of subject	2024/2025
Education level	first-cycle studies	Subject group	
Mode of study	Part-time studies	Mode of delivery	at the university
Year of study	1	Language of instruction	Polish
Semester of study	1	ECTS credits	2.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Division of Thermal Power Systems -> Institute of Energy -> Faculty of Mechanical Engineering and Ship Technology		
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. inż. Michał Klugmann	
	Teachers		

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
[K6_U14] is able to analyse the operation of devices and compare the construction solutions applying usage, safety, environmental, economic and legal criteria	The student knows the historical background basic branches of technology, encountered in everyday life. He is aware of values historical items, he can place them in chronology development.	[SU3] Assessment of ability to use knowledge gained from the subject [SU4] Assessment of ability to use methods and tools [SU2] Assessment of ability to analyse information
[K6_K01] is aware of the need for complementing the knowledge throughout the whole life, is able to select proper methods of teaching and learning, critically assesses the possessed knowledge; is aware of the importance of professional conduct and following the rules of professional ethics; is able to show resourcefulness and innovation in the realisation of professional projects	The listener is aware the importance of heritage historical for development both the technique itself and broader awareness - ethical, ecological, aesthetic. It has awareness of meaning humanistic foundation in engineer's work.	[SK5] Assessment of ability to solve problems that arise in practice
[K6_W15] possesses a knowledge necessary to understand the ex-technical conditions of engineering activity, possesses 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	The student is able to perform basic activities related to inventory and formal securing items historical. He knows the rule activities and historical context basic technical objects to the extent that they can classification and description.	[SW1] Assessment of factual knowledge

Subject contents

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. Gdansk against the backdrop of the industrial revolution, Gdansk 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).

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Essay	56.0%	100.0%

Recommended reading

Basic literature	No english literature yet.
Supplementary literature	[1] Act of 23 July 2003 on the protection and care of monuments, Journal of Laws 2003 No. 162 item 1568
eResources addresses	Adresy na platformie eNauczanie:

Example issues/ example questions/ tasks being completed

1. Description of the history of the selected field of technology.

2. Biography of a selected person associated with the development of technology.

Work placement

Not applicable

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