GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Civilisation and the environment, PG_00072991		
Field of study	Technical Physics		
Date of commencement of studies	February 2026	Academic year of realisation of subject	2026/2027
Education level	second-cycle studies	Subject group	Optional subject group
Mode of study	Full-time studies	Mode of delivery	e-learning
Year of study	1	Language of instruction	Polish
Semester of study	2	ECTS credits	2.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department of Environmental Engineering Technology -> Faculty of Civil and Environmental Engineering -> Faculties of Gdańsk University of Technology		
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. inż. Eliza Kulbat	
	Teachers		

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	30.0	0.0	0.0	0.0	0.0	30

E-learning hours included: 30.0

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	30	2.0	18.0	50

Subject objectives

To acquaint students with issues related to the mutual influence of civilization and the environment.

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 use knowledge in the field of nature protection, environmental protection and monitoring, the impact of civilization and highly developed technology on the state of the environment, sociology and philosophy to analyze and solve problems.	[SU2] Assessment of ability to analyse information [SU3] Assessment of ability to use knowledge gained from the subject
[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 student is able to explain the need to use the knowledge of the humanities and social sciences in functioning in the social environment and in the analysis and solving of scientific and technical problems.	[SK4] Assessment of communication skills, including language correctness [SK2] Assessment of progress of work
[K7_W71] has general knowledge in humanistic, social, economic or legal sciences, including their fundamentals and applications	The student has knowledge of nature protection, environmental protection and monitoring, the impact of civilization and highly developed technology on the state of the environment, sociology and philosophy.	[SW1] Assessment of factual knowledge [SW2] Assessment of knowledge contained in presentation

Subject contents

Course content – lecture

The origins of mankind and the first civilizations. Causes of the fall of great civilizations. Milestones in the development of civilizations. The industrial revolution. Demographic processes in the world - overpopulation vs. resources, the concept of prosperity and well-being, poverty and economic inequality, barriers to development. Globalization - challenges and opportunities, environmental, economic and social risks; irreversibility of globalization. Problems of environmental pollution, reversible and irreversible processes, depletion of raw material resources, energy demand. Will we fight wars over water? International agreements in environmental protection. Climate change - causes, effects, the need for interdisciplinary nature of the study of climate-society interaction. Modern migrations - causes nature, directions, current and future effects. Is there a chance for sustainable development?

Prerequisites and co-requisites

<table>
<tr><td>Assessment methods and criteria</td><td colspan="2"><table><tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr><tr><td>evaluation of the report</td><td>60.0%</td><td>100.0%</td></tr></table></td></tr>
<tr><td rowspan="3">Recommended reading</td><td>Basic literature</td><td>Ferguson N., Cywilizacja. Zachód i reszta. Wyd. Literackie, Warszawa 2013

Bauman Z., Globalizacja. Warszawa 2000.

Dobrzańska B., Dobrzański G., Kiełczowski D., Ochrona środowiska przyrodniczego. PWN, Warszawa 2010</td></tr>
<tr><td>Supplementary literature</td><td>Smil V., Energia i cywilizacja. Tak tworzy się historia. Editio, 2022

Cywilizacje starożytne, pod red. A. Cotterella, Łódź 1990

Dzik J., Dzieje życia na Ziemi. PWN, Warszawa 2003.

Diamond J., Strzelby, zarazki i stal. Zysk i S-ka, 2020

Bendyk E., Zatruta studnia. Rzecz o władzy i wolności. W.A.B., Warszawa 2002

Bendyk E., W Polsce, czyli wszędzie. Rzecz o upadku i przyszłości świata. Polityka Spółdzielnia Pracy, Warszawa 2020</td></tr>
<tr><td>eResources addresses</td><td></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td colspan="2">Construction of sewage systems and sewage treatment plants in cities - historical outline and modern problems.

The impact of various methods of energy production on the environment.</td></tr>
<tr><td>Practical activites within the subject</td><td colspan="2">Not applicable</td></tr>
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