University of Gdańsk

Subject card

Subject name and code	Is the world threatened with a global catastrophe?, PG_00140220		
Field of study	Archaeology		
Date of commencement of studies	October 2024	Academic year of realisation of subject	2024/2025
Education level	undergraduate studies	Subject group	
Mode of study	full-time studies	Mode of delivery	at the university
Year of study	1	Language of instruction	Polish
Semester of study	2	ECTS credits	2.0
Learning profile	academic	Assessment form	
Conducting unit	Pracownia Hydrologii -> Katedra Hydrologii -> Faculty of Oceanography and Geography -> Rektor		
Name and surname of lecturer (lecturers)	Subject supervisor	prof. dr hab. Roman Cieśliński	
	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: 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	30	2.0	18.0	50

Subject objectives

Getting to know the impact of selected environmental and anthropogenic conditions on potential global changes in the world. Determining the effects of climate change in the context of thermal changes, increasing the number of extreme phenomena, including rising sea levels, occurrence of droughts and floods, etc. Determining the main sources of greenhouse gas emissions in the context of energy and transport in the world. Discussion of the world's water resources in terms of their potential shortages now and in the future. Determining possible adaptations to climate change.

Learning outcomes

Course outcome	Subject outcome	Method of verification
	Is able to use the assumptions of the ecosystem approach to work environmental management, and knows the directions of development for the protection and restoration of water resources in selected sectors of the national economy. Is able to distinguish and characterize potential threats and sources surface and underground water pollution resulting from civilization development. Is able to analyze and evaluate modern management strategies environment, and in particular water resources management, taking into account relevant legal provisions and indication of administrative bodies responsible for water management and protection of water resources.	[SU4] test/exam - oral or written [SK4] test/exam - oral or written

<table>
<tr><td>Subject contents</td><td>1. The main causes of environmental degradation and change in the world.

2. Greenhouse effect and global climate change.

3. The impact of agriculture on the natural environment.

4. The impact of industry and tourism on the natural environment.

5. Greenhouse gas emissions.

6. Global ecological disasters.

7. War and blackmail over water.

8. Pollution of the hydrosphere and atmosphere.

9. Degradation of the lithosphere and pedosphere.

10. Extreme phenomena - droughts and floods.

11. The influence of corporations on the world's water resources.

12. Water-related diseases.

13. Adaptation to climate change in urban areas.

14. Adaptation to climate change in rural areas.</td></tr>
<tr><td>Prerequisites and co-requisites</td><td>Key competences at secondary school level, knowledge and skills in geography.</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>Written assessment, test exam</td><td>50.0%</td><td>100.0%</td></tr></table></td></tr>
<tr><td>Recommended reading</td><td><table><tr><td>Basic literature</td><td>Bostrom N., Cirkovic N.M., 2011, Global catastrophic risks, Oxford University Press, USA.

Smil V., 2008, Global catastrophes and trends: The next 50 years, The MIT Press.

Turchin A., Denkenberger D., 2020, Classification of global catastrophic risks connected with artificial intelligence. AI & Soc 35, 147163. https://doi.org/10.1007/s00146-018-0845-5</td></tr></table></td></tr>
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	Supplementary literature	Adamowicz M., 2012, Wspólna Polityka Rolna Unii Europejskiej w kontekście zmian klimatu na świecie, Zeszyty Naukowe SGGW, Polityki Europejskie, Finanse I Marketing, (8(57), 925. https:// pefim.sggw.edu.pl/article/view/1457. Chlost I., Cieśliński R., 2018, Effects of environmental and anthropogeni Slowinski National Park, northern Poland, Geologos 24, 1, 1328. Cieśliński R., 2016, Zmiany zasolenia i poziomu wody jeziora Jamno wyı Środowiska, 19 (4), 517-539, DOI: 10.17512/ios.2016.4.7 Cieśliński R., Przybylski M., 2017, Ocena hydrochemiczna klęski ekologi INŻYNIERII LĄDOWEJ, ŚRODOWISKA I ARCHITEKTURY, JCEEA, , t. II/17), 63-81. Duda F., Woźniak E., Jereczek - Korzeniewska K., Cieśliński R., 2017, Dynamika wahań wód poziomu wody na zdegradowanych torfowiskach bałtyckich, Przegląd Geologiczny, Przegląd Geologiczny, 65 (8), 526-532. Jankowski A. T., Rzętała M., 2005, Jeziora i sztuczne zbiorniki wodne, p gospodarcze, Uniwersytet Śląski, Sosnowiec Kistowski M., 2004, Wybrane aspekty zarządzania ochroną przyrody w parkach kra Naukowe, Gdańsk-Poznań. Kundzewicz Z., Juda-Rezler K., 2010, Zagrożenia związane ze zmianami klimatu, Nauka, 4, 69-76. Rodriguez-Iturbe I., Porporato, 2006, Ecohydrology of Water-Controlled Ecosystems, Cambridge. Rycharski M., 2009, Mokradła ekosystemy zależne od wody, [w:] W. Mioduszewski, W. Dembek (red.), Woda na obszarach wiejskich, Wydawnictwo IMUZ, Falenty,. 80-91.
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed	1. Describe an example of a global ecological disaster. 2. Characterize climate change in the world. 3. Discuss greenhouse gas emissions from peatlands.	
Work placement	Not applicable	

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