University of Gdańsk

Subject card

Subject name and code	Humanities II - Philosophy of nature, PG_00103630						
Field of study	Environmental Protection						
Date of commencement of studies	October 2026		Academic year of realisation of subject	2026/2027			
Education level	Bachelor's studies		Subject group	Obligatory subject group in the field of study Humanistic-social 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	credit			
Conducting unit							
Name and surname of lecturer (lecturers)	Subject supervisor		dr Patryk Dziurosz-Serafinowicz				
	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		5.0	15.0	50	
Subject objectives	- to gain knowledge about selected problems in contemporary philosophy of biology. In particular, the goal is to analyse some philosophical problems in the theory of evolution (for example, How does natural selection work? What are the levels of selection in biological reality?) - to apply methods of contemporary theory of evolution to classical philosophical problems, for example, evolutionary explanations of altruism or applications of evolutionary game theory to rational decision-making.						

Learning outcomes

Course outcome	Subject outcome	Method of verification
[OŚL3_K05] Identifies the level of her/his knowledge and skills, demonstrates the need to update knowledge about the environment and its protection, demonstrates the need for continuous professional training and personal development.	Students gain knowledge about explanations of biological diversity.	[SK4] test/exam - oral or written [SK8] observation of student's independent or team work
[OŚL3_K06] Knows and appreciates the practical application of the acquired knowledge and skills in solving problems.	Students gain knowledge of how to apply elementary methods of evolutionary theory.	[SK8] observation of student's independent or team work
[OŚL3_W07] Explains the causal relationship between the content of specific pollutants and the state of the environment (including human health) and the occurrence of adverse phenomena on a local, regional and global scale.	Students know how to analyze causal relations in biological reality.	[SW5] implementation of a problem task
[OŚL3_U08] Correctly concludes based on the available data from various sources.	Students know how to logically infer conlusions from premises.	[SU4] test/exam - oral or written

Subject contents

1. Are there laws of nature in biology?

2. Main features of Darwin's theory of evolution

3. The concept of fitness in the theory of evolution

4. Levels of selection in the theory of evolution

5. Altruism from the perspective of evolutionary theory

6. Reductionism in philosophy of biology

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
project	70.0%	30.0%
exam/test	50.0%	70.0%

Recommended reading	Basic literature	1. Beatty, J. H. (1995), ,,The Evolutionary Contingency Thesis, [w:] Conceptual Issues in Evolutionary Biology, ed. E. Sober, 2006, MIT Press, ss. 217-248. 2. Kitcher, P. (1984), ,,1953 and All That: A Tale of Two Sciences, [w:] Conceptual Issues in Evolutionary Biology, ed. E. Sober, 2006, MIT Press, ss. 261-282. 3. Mayr, E. (2007), What Makes Biology Unique?, Cambridge University Press. 4. Mayr, E. (1975), ,,Typological versus Population Thinking, [w:] Conceptual Issues in Evolutionary Biology, ed. E. Sober, 2006, MIT Press, ss. 325- 328. 5. Mills, S.K., Beatty, J. (1979), ,,The Propensity Interpretation of Fitness, [w:] Conceptual Issues in Evolutionary Biology, ed. E. Sober, 2006, MIT Press, ss. 3-24. 6. Okasha, S. (2006), Evolution and the Levels of Selection, Oxford University Press. 7. Sober, E. (1980), ,,Evolution, Population Thinking, and Essentialism, [w:] Conceptual Issues in Evolutionary Biology, ed. E. Sober, 2006, MIT Press, ss. 329-359. 8. Sober, E. (1997), ,,Two Outbreaks of Lawlessness in Recent Evolutionary Biology, [w:] Conceptual Issues in Evolutionary Biology, ed. E. Sober, 2006, MIT Press, ss. 249-258. 9. Sober, E., Wilson, D. S. (1998), Unto Others. The Evolution and Psychology of Unselfish Behavior, Harvard University Press. 10. Sober, E. (1999), ,,The Multiple Realizability Argument Against Reductionism, [w:] Conceptual Issues in Evolutionary Biology, ed. E. Sober, 2006, MIT Press, ss. 301-322. 11. Sober, E. (2011), Did Darwin Write the Origin Backwards? Philosophical Essays on Darwin Theory, Prometheus Books.
	Supplementary literature	-
	eResources addresses	
Example issues/ example questions/ tasks being completed	-	
Work placement	Not applicable	

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