University of Gdańsk

Subject card

Subject name and code	Nature and environment protection, PG_00198115						
Field of study	Natural Resources Conservation						
Date of commencement of studies	October 2026		Academic year of realisation of subject	2027/2028			
Education level	Bachelor's studies		Subject group	Obligatory subject group in the field of study Subject group related to scientific research in the field of study			
Mode of study	full-time studies		Mode of delivery	at the university			
Year of study	2		Language of instruction	Polish			
Semester of study	4		ECTS credits	2.0			
Learning profile	academic		Assessment form	credit			
Conducting unit	Laboratory of Geobotanics and Nature Conservation -> Department of Plant Taxonomy and Nature Conservation -> Faculty of Biology -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Piotr Rutkowski, prof. UG				
	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		4.0	16.0	50	
Subject objectives	Understand the causes and directions of environmental degradation and know how to protect components of inanimate nature. To learn the basics of nature and environmental protection law. To know the forms and methods of nature protection. Understanding the problems of nature and environmental protection						

Learning outcomes

Course outcome	Subject outcome	Method of verification
[OZPL3_K01] The graduate is ready to recognise the limitations in his/her own knowledge and understands the need for continuous learning and development	Graduates know the limitations of their own knowledge in the field of nature and environmental protection and understand the need for continuous learning and development	[SK1] oral statement/conversation/ discussion [SK3] text preparation/written work [SK4] test/exam - oral or written [SK5] implementation of a problem task
[OZPL3_K08] The graduate is ready to systematically update his/ her natural knowledge and to apply it in practice	The graduate is ready to systematically expand their knowledge of natural sciences and apply it practically in various professional situations. Thanks to the skills acquired during their education, they can effectively absorb new information and adapt to changing job market requirements.	[SK1] oral statement/conversation/ discussion [SK5] implementation of a problem task [SK8] observation of student's independent or team work
[OZPL3_U03] The graduate is able to search for and use available sources of biological information, including electronic sources, and critically analyse them	Graduate searches for information regarding protected areas and species, uses available sources of information regarding the state of the environment and critically analyzes them	[SU1] oral statement/conversation/ discussion [SU3] text preparation/written work [SU4] test/exam - oral or written [SU5] implementation of a problem task
[OZPL3_U08] The graduate is able to use the scientific language typical of the biological sciences in discussions with specialists	Graduate participates in discussions using scientific language typical of the biological sciences	[SU1] oral statement/conversation/ discussion [SU3] text preparation/written work [SU4] test/exam - oral or written [SU5] implementation of a problem task
[OZPL3_W14] The graduate understands the relationship between the achievements of natural sciences and their potential applications in socio-economic contexts, while considering the sustainable use of biodiversity	The graduate explains the relationship between the achievements of natural sciences and the possibilities of their use in socio-economic life, taking into account the sustainable use of biodiversity	[SW4] test/exam - oral or written [SW1] oral statement/ conversation/discussion [SW3] text preparation/written work [SW5] implementation of a problem task
[OZPL3_W13] The graduate has an advanced understanding of the rules, methods, and techniques of environmental research and their potential applications in nature conservation	Absowent introduces the basic rules, methods and techniques for conducting environmental studies and how they can be used in nature conservation	[SW4] test/exam - oral or written [SW1] oral statement/ conversation/discussion [SW3] text preparation/written work [SW5] implementation of a problem task
[OZPL3_W07] The graduate has an advanced understanding of the methods and means of nature and environmental protection, including nature monitoring	The graduate introduces methods and ways to protect nature and the environment, including nature monitoring	[SW4] test/exam - oral or written [SW1] oral statement/ conversation/discussion [SW3] text preparation/written work [SW5] implementation of a problem task

Subject contents

History of human impact on the environment. Exhaustible and inexhaustible resources of nature. Water - resources, pollutants, sources of pollution, methods of protection. Air - composition of the atmosphere, air pollutants and related phenomena (acid rain, smogs, ozone hole, anthropogenic greenhouse effect), methods of protecting the air from pollution. Soil degradation and protection of soil resources. Waste management. Use of inexhaustible sources of energy. Monitoring of the environment in Poland. Strategy of sustainable development. Basic legal acts and international conventions on nature and environment protection. Organization of nature protection in Poland and the European Union. Forms of exploitation of living nature. Causes of extinction of plant and animal species. Species protection, red lists and books. The problem with expansive and invasive species. Area-based protection. Natura 2000 network as a form of nature conservation. Conservation of genetic, species and biocenotic diversity. Methodology of protection of species, biocenoses and biotopes based on examples from the Gdansk Pomerania region.

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
final exam	51.0%	100.0%

Recommended reading

Basic literature

1. Dobrzańska B., Dobrzański G., Kiełczewski D. 2008. Ochrona środowiska przyrodniczego. Wyd. Nauk. PWN.
2. Symonides E. 2007. Ochrona Przyrody. Wyd. UW.
3. Popkiewicz M. 2012. Świat na rozdrożu Wyd. Sonia Draga
4. Popkiewicz M., Kardaś A., Malinowski Sz. 2018 . Nauka o klimacie. Wyd. Sonia Draga

	Supplementary literature	1. Chełmicki W. 2002. Woda zasoby, degradacja, ochrona. PWN. 2. Craig J.R., Vaughan D. J., Skinner B. J. 2003. Zasoby Ziemi. PWN. 3. Mannion A. M. 2001. Zmiany środowiska Ziemi. PWN. 4. Rosik-Dulewska Cz. 2008. Podstawy gospodarki odpadami, PWN. 5. Pullin A.S. 2012. Biologiczne podstawy ochrony przyrody. PWN, Warszawa. 6. Fudali E. 2009. Antropogeniczne zmiany w ekosystemach. UWP, Wrocław.
	eResources addresses	
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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