

Subject card

Subject name and code	Forest ecosystems - protection and management, PG_00103767						
Field of study	Natural Resources Conservation						
Date of commencement of studies	October 2023	Academic year of realisation of subject	2025/2026				
Education level	Bachelor's studies	Subject group	Optional subject group				
Mode of study	full-time studies	Mode of delivery	at the university				
Year of study	3	Language of instruction	Polish				
Semester of study	5	ECTS credits	1.0				
Learning profile	academic	Assessment form	credit				
Conducting unit							
Name and surname of lecturer (lecturers)	Subject supervisor	dr Renata Afranowicz-Cieślak					
	Teachers	dr Renata Afranowicz-Cieślak					
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	15.0	0.0	0.0	0.0	15
	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	15		0.0		0.0	15
Subject objectives	Learning about the basic types of forest ecosystems found in Poland. Acquiring the ability to distinguish and characterize the internal structure of forest ecosystems. Knowledge of the diversity of forest cover due to geographical and habitat conditions.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[OZPL3_K08] The graduate is ready to systematically update his/her natural knowledge and to apply it in practice	- systematically updates knowledge based on professional sources in the field of biology and forestry and knows its practical applications in forestry	[SK4] test/exam - oral or written
	[OZPL3_K05] The graduate is ready to understand the need to improve their own competences, update their knowledge and improve their skills	- understands the need to update knowledge about forest ecosystems and improve skills in its application	[SK4] test/exam - oral or written
	[OZPL3_U03] The graduate is able to search for and use available sources of biological information, including electronic sources, and critically analyse them	- has the ability to use available sources of information, including electronic sources, and can verify the correctness of the information obtained in the field of biology and forestry	[SU4] test/exam - oral or written
	[OZPL3_U02] The graduate can read with comprehension scientific texts in the field of natural sciences in Polish and simple texts in English	- reads and understands scientific texts in the field of biological and forest sciences in Polish and simple texts in English	[SU4] test/exam - oral or written
[OZPL3_W11] The graduate possesses a fundamental understanding of the concepts and terminology of natural science, as well as knowledge of the evolution of natural sciences and the research methods employed in them. They are also cognizant of the potential for practical application	- knows basic biological concepts and terminology and selected concepts used in forest sciences - knows the practical application of research methods used in the ecology of woody plants and forestry, and their practical application in shaping forest ecosystems	[SW4] test/exam - oral or written	
Subject contents	Characteristic features of the most important types of forests in Poland and the environmental conditions in which they are formed. The functioning of the forest ecosystem and the elements that build individual layers of forest communities. The role of forests in the environment and their economic importance. Multifunctionality of forests, their future and threats. Dangerous species of insects and fungi in the forest - gradations, methods of control. Forest Management Plan - how the cultivation and use of the forest is planned. Protection of forest ecosystems.		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	written assessment (test and open questions)	51.0%	100.0%
Recommended reading	Basic literature	<p>Andrzejewski R., Weigle A. (red.) 2003. Różnorodność biologiczna Polski. Narodowa Fundacja Ochrony Środowiska, Warszawa.</p> <p>Falińska K. 1996. Ekologia roślin. PWN, Warszawa.</p> <p>Gruszecki K. 2005. Ustawa o ochronie przyrody. Komentarz. Kraków.</p> <p>Grzywacz A. 2001. Podstawy prawne trwale zrównoważonej gospodarki leśnej. Roczniki AR w Poznaniu, Leśnictwo 39: 93-107.</p> <p>Hartmann G., Nienhaus F., Butin H. 2009. Atlas uszkodzeń drzew leśnych. Tom 1. Multico Oficyna Wydawnicza, Warszawa.</p> <p>Mańka M. 2011. Choroby drzew leśnych. Poradnik leśnika. PWRiL, Warszawa.</p> <p>Szymański S. 2000. Ekologiczne podstawy hodowli lasu. PWRiL, Warszawa.</p>	

	Supplementary literature	<p>Krebs Ch. 2001. Ekologia. Eksperymentalna analiza rozmieszczenia i liczebności. PWN. Warszawa.</p> <p>Markert B. (red.). 1993. Plants as Biomonitors. VCH, Wienheim-New York-Basel-Cambridge.</p> <p>Żółkoś K. 2010. Udział i rola sosny zwyczajnej (<i>Pinus sylvestris</i> L.) w zbiorowiskach roślinnych Słowińskiego Parku Narodowego na tle dawnych przemian roślinności. Acta Bot. Cassub. 7-9: 99-121.</p>
	eResources addresses	
Example issues/ example questions/ tasks being completed	Examples of the economic function of forests.	
Work placement	Not applicable	

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