

Subject card

Subject name and code	Plant biology, PG_00207252						
Field of study	Biology						
Date of commencement of studies	October 2026		Academic year of realisation of subject		2026/2027		
Education level	Master's studies		Subject group		Obligatory subject group in the field of study Optional subject group 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	1		Language of instruction		Polish		
Semester of study	2		ECTS credits		3.0		
Learning profile	academic		Assessment form		exam		
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				
	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		43.0	75
Subject objectives	1. Demonstrate the coherence and network of relationships between the plant and animal worlds, as well as between plants and their surrounding environment. 2. To understand the mechanisms of processes occurring at the interface between the plant and animal worlds such as pollination, dispersal and vegetative reproduction. 3. To understand the links between plant structure and their response to different environmental factors. 4. To relate problems at the interface between plant and animal ecology and evolution. 5. To acquire the ability to interpret structural regularities in evolutionary aspects of plants						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[BIOLMU2_U02] the graduate is able to proficiently use the scientific literature of the biological speciality studied	Graduates are able to make proficient use of scientific literature to learn about the relationship between the plant and animal worlds	[SU1] oral statement/conversation/discussion [SU3] text preparation/written work [SU4] test/exam - oral or written [SU5] implementation of a problem task
	[BIOLMU2_K07] the graduate is ready to systematically update biological knowledge and information on its practical applications	Graduates are ready to systematically update their biological knowledge and information on how to study the complexities of plant pollination and reproduction	[SK1] oral statement/conversation/discussion [SK3] text preparation/written work [SK4] test/exam - oral or written [SK5] implementation of a problem task
	[BIOLMU2_U03] the graduate is able to critically analyze and select biological information, especially from electronic sources	The graduate is able to critically analyse and select biological information, especially from electronic sources on plant evolution and ecology.	[SU1] oral statement/conversation/discussion [SU3] text preparation/written work [SU4] test/exam - oral or written [SU5] implementation of a problem task
	[BIOLMU2_W05] The graduate has an in-depth knowledge and understanding of the dynamic development of the biological sciences and is well versed in new research trends and disciplines	Graduates know and understand the dynamic development of biological sciences in the field of pollination and plant reproduction	[SW4] test/exam - oral or written [SW1] oral statement/conversation/discussion [SW3] text preparation/written work [SW5] implementation of a problem task
	[BIOLMU2_W01] the graduate has a deep knowledge and understanding of natural phenomena and processes at various levels of complexity	The graduate knows and understands to an in-depth degree the relationship between the plant and animal worlds, as well as between plants and their surrounding environment.	[SW4] test/exam - oral or written [SW1] oral statement/conversation/discussion [SW3] text preparation/written work [SW5] implementation of a problem task
	[BIOLMU2_W04] the graduate has in-depth knowledge of the chosen specialization in the biological sciences	The graduate knows and understands the mechanisms of processes occurring at the interface between the plant and animal worlds, such as pollination, dispersal and vegetative reproduction.	[SW4] test/exam - oral or written [SW1] oral statement/conversation/discussion [SW3] text preparation/written work [SW5] implementation of a problem task
Subject contents	The lecture discusses the evolutionary changes of angiosperm and angiosperm plants since their origin in the context of adaptations for pollination and seed dispersal and the different modes of vegetative reproduction. Shows the mechanisms of pollination and propagation at the genetic and chemical levels. Explains the origin and evolutionary development of the network of interactions between plants and other living organisms and the causes and pathways of their origin. Discusses the detailed morphological and anatomical adaptations associated with specific pollination or propagation processes. Explains the more important processes that are crucial during the course of floral plant evolution. Discusses the problem of the disappearance of plant biodiversity and the animals that pollinate them.		
Prerequisites and co-requisites	Successful completion of the course Systematics and Evolution of Seed Plants and Fungi (undergraduate) or a similar content area		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	final exam	51.0%	100.0%
Recommended reading	Basic literature	- Ollerton J. 2021. Pollinators & Pollinations, Nature and Society. Pelagic Publishing. Exter - Ollerton J. 2024. Birds and Flowers, An Intimate 50 Million Year Relationship Pelagic Publishing. Exter - Willis K.J. & McElwain. 2002. The Evolution of Plants. Oxford University Press. London, New York. - Willmer P. 2011. Pollination and Floral Ecology. Pincerton University Press. Pincerton, New Jersey. - Dzik J. 2020. Ewolucja. Twórcza moc selekcji. Wydawnictwa Uniwersytetu Warszawskiego. Warszawa	
	Supplementary literature	- Harborne J.B. 1997. Ekologia biochemiczna. PWN, Warszawa. - Willis K.J. & McElwain. 2002. The Evolution of Plants. Oxford University Press. London, New York 1-378	
	eResources addresses		
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		

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