

Subject card

Subject name and code	Identification of seed plants - laboratory exercises, PG_00118042						
Field of study	Natural Resources Conservation						
Date of commencement of studies	October 2024	Academic year of realisation of subject			2024/2025		
Education level	undergraduate studies	Subject group			Obligatory subject group 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			5.0		
Learning profile	academic	Assessment form					
Conducting unit							
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Przemysław Baranow				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	60.0	0.0	0.0	60
	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	60		5.0		60.0	125
Subject objectives	To learn and understand the methods used in identification. Learning about the morphology of plants and their morphological differentiation. Reviewing selected systematic groups with regard to their taxonomic characteristics.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[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	- Student understands basic concepts and terminology of botany, and is familiar with research techniques used in botanical studies, including knowledge of how to use keys for identifying taxa (O_W11)	[SW1] oral statement/ conversation/discussion [SW2] presentation/project/paper/ report
	[OZPL3_K06] The graduate is prepared to demonstrate responsibility for their own and others' safe working conditions in the laboratory and in the field, and is able to recognise hazardous situations and take appropriate action	- Student demonstrates responsibility for the safe working conditions of his/her own and others in the laboratory and is able to recognize hazardous situations and take appropriate actions (O_K06)	[SK8] observation of student's independent or team work
	[OZPL3_K03] The graduate is ready to identify priorities to achieve a task defined by him/herself or others	- The student is able to appropriately determine priorities for the realization of a task defined by him/herself or others (O_K03)	[SK8] observation of student's independent or team work
	[OZPL3_W04] The graduate possesses advanced knowledge and understanding of the characteristics, systematics, and evolution of selected groups of organisms, as well as the basic concepts and mechanisms of evolution	- Student presents the characteristics, systematics and evolution of selected groups of seed plants, describes the differences between known species and taxa of higher level that allow their identification (O_W04)	[SW1] oral statement/ conversation/discussion [SW2] presentation/project/paper/ report
	[OZPL3_U06] The graduate is able to make observations and perform basic physical, biological and chemical measurements in the field or laboratory	- The student makes observations and measurements in the work aimed at identifying plants and learn about their diversity (O_U06)	[SU2] presentation/project/paper/ report [SU5] implementation of a problem task [SU6] demonstration of practical skills [SU8] observation of student's independent or team work
[OZPL3_U04] The graduate is able to plan and carry out simple research tasks in the biological sciences under the guidance of a supervisor	- Student plans and performs simple tasks in the field of botanical research with the support of the supervisor (O_U04)	[SU5] implementation of a problem task [SU6] demonstration of practical skills [SU8] observation of student's independent or team work	
Subject contents	<p>Research techniques and methods used in plant identification. The concept of taxonomic features criteria that such features should meet, and sources of taxonomic characteristics used in plant identification. Keys for identifying plant species types, structure, and principles of use in taxon identification. Morphology of seed plants, modifications of plant organs depending on their functions, plant adaptations to different pollination methods and seed dispersal. The significance of these features in plant classification and identification. Morphological diversity as a basis for classification and differentiation of taxa of various ranks. Selected systematic groups of plants (characteristics, systematic position, taxonomic features of families and species). Identification of plants, based on herbarium specimens and fresh material, relying on taxonomic characteristics.</p>		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	colloquium 1	51.0%	25.0%
	colloquium 2	51.0%	25.0%
	arithmetic mean of scores of the tests	51.0%	25.0%
	presentation	51.0%	25.0%
Recommended reading	Basic literature	<p>A.1. wykorzystywana podczas zajęć Goet J.-D. 1998. Pędy i pąki, rozpoznawanie drzew i krzewów w okresie spoczynku. Multico, Warszawa. Kucharczyk S. 2009. Flora wiosenna lasów. Bieszczadzki Park Narodowy. Rothmaler W. 2009. Exkursionflora von Deutschland, 3. Springer-Verlag Berlin, Heidelberg. Rutkowski L. 2004. Klucz do oznaczania roślin naczyniowych Polski niżowej. PWN, Warszawa. Szwejkowska A., Szwejkowski J. 2009. Botanika. PWN, Warszawa. A.2. studiowana samodzielnie przez studenta Szwejkowska A., Szwejkowski J. 2009. Botanika. PWN, Warszawa</p>	
	Supplementary literature	None	

	eResources addresses	Adresy na platformie eNauczenie:
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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