


KAPITAŁ LUDZKI
 NARODOWA STRATEGIA SPÓJNOŚCI

 Projekt współfinansowany przez
 Unię Europejską w ramach
 Europejskiego Funduszu
 Społecznego

UNIA EUROPEJSKA
 EUROPEJSKI
 FUNDUSZ SPOŁECZNY


Course title		ECTS code	
Plants and fungi - evolution, protection, interactions and systematics		13.1.1447	
Name of unit administrating study			
null			
Studies			
faculty	field of study	type	first tier studies (BA), second tier studies (MA)
Faculty of Biology	Medical Biology	form	full-time
		specialty	all
		specialization	all
Faculty of Biology	Biology	type	first tier studies (BA), second tier studies (MA)
		form	full-time
		specialty	all
Faculty of Biology	Genetics and Experimental Biology	specialization	all
		type	first tier studies (BA)
		form	full-time
Faculty of Biology	Natural Resources Conservation	specialty	all
		specialization	all
		type	first tier studies (BA)
Faculty of Oceanography and Geography	BRAK TŁUMACZENIA	form	full-time
		specialty	all
		specialization	all
Teaching staff			
prof. dr hab. Martin Kukwa; dr Beata Guzew-Krzemińska; dr Przemysław Baranow; dr Sławomir Nowak; prof. dr hab. Dariusz Szlachetko; dr hab. Wojciech Pokora, profesor uczelni; Marc-Andre Selosse			
Forms of classes, the realization and number of hours		ECTS credits	
Forms of classes		2	
Lecture		Work in contact with the teacher:	
The realization of activities		participation in lectures - 15 hours	
classroom instruction, online classes		consultations with the lecturer - 9 hours	
Number of hours		exam - 2 hours	
Lecture: 15 hours		The individual student work:	
		preparation for the exam - 20 hours	
		studying the literature and materials for classes - 4 hours	
The academic cycle			
2022/2023 summer semester			
Type of course		Language of instruction	
an elective course		english	
Teaching methods		Form and method of assessment and basic criteria for evaluation or examination requirements	
- Lecture with multimedia presentation		Final evaluation	
- multimedia-based lecture		Examination	
		Assessment methods	
		written exam	
		The basic criteria for evaluation	

Attendance at lectures is mandatory. During the lectures are presented content that the student will not find in the textbook. Materials presented at the lecture, at which the student is absent, must be learned on their own.

Method of verifying required learning outcomes**Required courses and introductory requirements****A. Formal requirements**

none

B. Prerequisites

none

Aims of education

1. Introduction of basic and most important issues of evolution, taxonomy and systematics of plants and fungi.
2. The concepts of botanical terminology.
3. Review of selected systematic groups of plants and fungi (with special emphasis on lichens).
4. Understanding of the basic functioning of living organisms and their phylogenetic relationships.
5. The interactions between fungi and plants.
6. Threats, extinction and conservation of species.

Course contents

Evolution and phylogenetics of plants and fungi and their interactions. Systematics and taxonomy of plants and fungi. Interactions of fungi and plants (e.g., mycorrhiza, lichenisation). Extinction of species, their threats and protection.

Bibliography of literature**A. Literatura wymagana do ostatecznego zaliczenia zajęć (zdania egzaminu):****A.1. wykorzystywana podczas zajęć**

- Maarten J. M. Christenhusz, Michael F. Fay, Mark W. Chase. 2017. Plants of the World: An Illustrated Encyclopedia of Vascular Plants. University of Chicago Press
- Nash, III, T. (Ed.). (2008). Lichen Biology (2nd ed.). Cambridge: Cambridge University Press. doi:10.1017/CBO9780511790478
- Coleman M (ed.). From Another Kingdom: The Amazing World of Fungi. Royal Botanic Garden Edinburgh
- Purvis O. W. 2000. Lichens. Natural History Museum, London / Smithsonian Institution, Washington
- Smith S., Read D. 2008 . Mycorrhizal Symbiosis. Academic Press
- Wagler R. 2018. 6th Mass Extinction. In: Reference Module in Earth Systems and Environmental Sciences.
- Sullivan W.T. Baross J. 2018. Planets and Life. Cambridge Univ. Press.
- van Uhm D.P. 2016. The Sixth Mass Extinction. In: The Illegal Wildlife Trade.

A.2. studiowana samodzielnie przez studenta

- Angiosperm Phylogeny Website <http://www.mobot.org/MOBOT/Research/APWeb/welcome.html>
- Gingerich E. 2020. Leadership in the Sixth Mass Extinction. JVBL 13(1): 16.
- Googins N.F. 2020. Survivors of the Mass Extinction. The Hopkins Review 13(2): 252-25

B. Literatura uzupełniająca

- Friis E.M., Pedersen K.R., Crane P.R. 2010. Diversity in obscurity-fossil flowers and early history of Angiosperms. Phil.Trans.R.Soc.B 365: 396-382.
- Soltis D.E., Soltis P.S. 2004. The origin and Diversification of Angiosperms. Am.J.Bot. 91: 1614-1625.
- Kranner I., R. P. Beckett and A. K. Varma (Eds). 2002. Protocols in Lichenology. Culturing, Biochemistry, Ecophysiology and Use in Biomonitoring. Berlin: Springer-Verlag. ISBN 3-540-41139-9.

The learning outcomes (for the field of study and specialization)**Knowledge**

- describes characteristics, systematics and evolution of selected groups of organisms, taking into account molecular basis, and describes the basic concepts and mechanisms of evolution
- is familiar with the development and current state of knowledge, as well as the latest trends in biology, and indicates their relationship with other disciplines in the natural sciences
- understands the natural phenomena and processes at various levels of complexity

Skills

- combines data from various sources and on this basis draws adequate conclusions
- reads and understands scientific biological texts in English
- can use technical biology terms in English in a way that is comprehensible and accessible for specialists, as well as people outside the group of specialists
- critically confronts biological information from various sources and draws

	reasonable conclusions on this basis
	Social competence <ul style="list-style-type: none">- knows the limits of their own knowledge and understands the need for constant learning and development, and is open to new ideas- systematically updates biological knowledge and information about its practical applications
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