OS14a - Phytoindication - course description

General information

Course name	OS14a - Phytoindication
Course ID	13.9-WB-OS2P-fotoind-S17
Faculty	Faculty of Biological Sciences
Field of study	Environmental Protection
Education profile	academic
Level of studies	First-cycle studies leading to Bachelor's degree
Beginning semester	winter term 2021/2022

Course information

Semester	6
ECTS credits to win	2
Course type	obligatory
Teaching language	english
Author of syllabus	• dr Dmytro Iakushenko

Classes forms

The class form	Hours per semester (full-time)	Hours per week (full-time)	Hours per semester (part-time)	Hours per week (part-time)	Form of assignment
Lecture	15	1	-	-	Credit with grade
Class	15	1	-	-	Credit with grade

Aim of the course

Ehe aim of the course is to acquire theoretical knowledge on indicative features of various groups of organisms (vascular plants, mosses, algae, lichens). The student will be familiar with the basic methods of phytoindication and their principles; could recognize the main indicator species of Polish flora; identify the main types of environmental indicators; is able to use the appropriate scale and indices in scientific research and monitoring.

Prerequisites

Basic knowledge on general ecology and botany.

Scope

General concepts on phytoindication. Indicator species. Indicator values. Scales. Lichens as bioindicators. Algae. Bryophytes. Vascular plants.

Teaching methods

LECTURE - feeding method: in the form of a multimedia presentation.

LABORATORIES - practical: laboratory training using plant materials

Learning outcomes and methods of theirs verification

Outcome description	Outcome symbols	Methods of verification	The class form
The student applies the appropriate indicators, scales or indices.	• K1A_U56	• a final test • an ongoing monitoring during classes	• Lecture • Class
The student uses the self-learning method and realizes the necessity to learn and improve skills in given scientific branch.	• K1A_K08	• an ongoing monitoring during classes	• Lecture • Class
The student selects the indicators and indicator species, explains the theoretical principles of the phytoindication.	• K1A_W79	• a final test • an ongoing monitoring during classes	• Lecture • Class

Assignment conditions

The credit is given basing on the positive results of the written test (consists of 20 open and closed questions; the positive result is based on a positive evaluation of a minimum 60% of the questions), and positive evaluation of the multimedia presentation on given topic.

Recommended reading

1. Zimny H. 2006. Ekologiczna ocena stanu środowiska: bioindykacja i biomonitoring. ARW Grzegorczyk, Warszawa.

2. Zarzycki K., Trzcińska-Tacik H., Kóżański W., Szeląg Z., Wołek J., Korzeniak U. 2002. Ekologiczne liczby wskaźnikowe roślin naczyniowych Polski. Instytut Botaniki PAN im. W. Szafera, Kraków.

3. Roo-Zielińska E. 2004. Fitoindykacja jako narzędzie oceny środowiska fizycznogeograficznego. Podstawy teoretyczne i analiza porównawcza stosowanych metod. Prace

geograficzne, 199. IGiPZ PAN, Warszawa.

Further reading

1. Wysocki C., Sikorski P. 2002. Fitosocjologia stosowana. Wydawnictwo SGGW, Warszawa.

2. Falińska K. 2004. Ekologia roślin. Wydawnictwo Naukowe PWN, Warszawa 2004.

Notes

Modified by dr Olaf Ciebiera (last modification: 19-05-2021 22:02)