



OPIS PREDMETA / SUBJECT SPECIFICATION

Predmet:	Geobotanika
Subject Title:	Geobotany

Študijski program Study programme	Študijska smer Study field	Letnik Year	Semester Semester
Biologija in ekologija z naravovarstvom /Biology and ecology with nature conservation	Biologija; Ekologija z naravovarstvom / Biology; Ecology with nature conservation	2	3

Univerzitetna koda predmeta / University subject code:

Predavanja Lectures	Seminar Seminar	Sem. vaje Tutorial	Lab. vaje Lab. work	Teren. vaje Field work	Samost. delo Individ. work	ECTS
30	15			30	135	7

Nosilca predmeta / Lecturers:

Jeziki / Predavanja / Lecture:
Languages: Vaje / Tutorial:

Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:

Prerequisites:

Vsebina:

Contents (Syllabus outline):

- Definicije v geobotaniki
- Geobotanika kot del ekologije
- Okoljski dejavniki, ki vplivajo na razvoj vegetacije: temperatura, voda, pH, svetloba, nutrienti
- Vegetacijski vzorci v prostoru in času
- Metode vzorčenja vegetacije
- Klasifikacije vegetacije
- Direktna in indirektna analiza gradientov
- Vegetacija Slovenije

- Definitions in geobotany
- Geobotany as a part of ecology
- Environmental factors affecting vegetation: temperature, water, pH, light, nutrients
- Vegetation patterns in space and time
- Methods of vegetation sampling
- Classification of vegetation
- Direct and indirect gradient analysis
- Vegetation of Slovenia

Temeljni študijski viri / Textbooks:

- Bohn, U., G. Gollub, C. Hettwer, Z. Neuhäuslová, T. Raus, H. Schlüter, H. Weber, 2004: Map of Natural Vegetation of Europe, Federal Agency for Nature Conservation, Bonn.
- Chapin, F. S., P. A. Matson, H. A. Mooney, 2002: Principles of terrestrial ecosystem ecology. Springer Verlag.
- Dierschke, H., 1994: Pflanzensoziologie. Ulmer, Stuttgart.
- Ellenberg, H., 1996: Vegetation Mitteleuropas mit den Alpen. – Ulmer Verlag Stuttgart.
- Gurevitch, J., S. Scheiner, G. Fox, 2002: Plant ecology. Sinauer Associates Inc. Publishers, Sunderland, Massachusetts, USA.
- Hill, M.O. 1979. TWINSPLAN – a FORTRAN program for arranging multivariate data in an ordered two-

way table by classification of individuals and attributes. – Cornell Univ. Ithaca N. Y

- Marinček, L., 1987: Bukovi gozdovi na Slovenskem. Delavska enotnost, Ljubljana.
- Marinček, L., A. Čarni, 2002: Komentar k vegetacijski karti gozdnih združb Slovenije 1:400.000, karta, CD, Založba ZRC, Ljubljana.
- Mucina, L., G. Grabherr, S. Wallnöfer, 1993: Die Pflanzengesellschaften Österreichs. Teil I-III Wälder und Gebüsche. Gustav Fisher, Jena.
- Nentwig, W., S. Bacher, C. Beierkuhnlein, R. Brandl, G. Grabherr, 2004: Ökologie. Spektrum Akad. Verlag, Heidelberg, Berlin.
- Podani, J. 1993: Syn-tax-pc. Computer Programs for Multivariate data analysis in ecology and Systematics. Version 5.0. Budapest.
- Rodwell, J., J.H.J. Schamineé, L. Mucina, S. Pignatti, J. Dring, D. Moss, 2002: The diversity of European vegetation. An overview of phytosociological alliances and their relationship to EUNIS habitats. Wageningen, NL. EC-LNV. Report EC-LNV nr. 2002/054.
- ter Braak C. J. F. & Šmilauer P., 2002: CANOCO Reference Manual and CanoDraw for Windows User's Guide: Software for Canonical Community Ordination (version 4.5). Microcomputer Power, Ithaca NY, USA

Cilji:

- Podati definicije v geobotaniki
- Pregled osnovnih zakonitosti, konceptov in teorij v geobotaniki
- Podati pregled okoljskih dejavnikov
- Omogočiti razumevanje vegetacijskih vzorcev v prostoru in času
- Predstaviti različne metode za vzorčenje vegetacije
- Predstaviti različne metode za obdelavo vegetacijskih podatkov spoudarkom na modernih numeričnih metodah
- Podati pregled nad vegetacijo Zemlje, Evrope in Slovenije
- Kratak opis vegetacije Slovenije

Predvideni študijski rezultati:

Znanje in razumevanje:

Poznavanje in razumevanje temeljnih zakonitosti v geobotaniki
Poznavanje glavnih okoljskih dejavnikov, ki pogojujejo razvoj vegetacije
Razumevanje vegetacijskih vzorcev v prostoru in času
Poznavanje metod za vzorčenje vegetacije, obdelavo podatkov
Pregled nad vegetacijo Zemlje, Evrope in Slovenije

Prenesljive/ključne spretnosti in drugi atributi:

- Sposobnost razumevanja ključnih segmentov geobotanike
- Sposobnost izmeriti in razumeti okoljske dejavnike, ki vplivajo na vegetacijo
- Sposobnost uporabe metodologije vzorčenja vegetacije
- Sposobnost uporabe različnih metod za obdelavo vegetacijskih podatkov
- Sposobnost prepoznati vegetacijske tipe na različnih hierarhičnih nivojih.

Objectives:

- To give definitions in geobotany.
- To give a review of the basic laws, concepts and theories in geobotany.
- To give a review of environmental factors.
- To provide the understanding of vegetation patterns in space and time.
- To present different methods for sampling of vegetation data
- To present different methods for elaboration of vegetation data with main stress on modern numerical analysis
- To give an overview of vegetation of the Earth, Europe and Slovenia.
- Short description of the vegetation of Slovenia.

Intended learning outcomes:

Knowledge and Understanding:

- Knowledge and understanding of basic principles in geobotany.
- Knowledge about common environmental factors.
- Understanding of the vegetational patterns in space and time.
- Knowledge of methodology for vegetation sampling, elaboration of vegetation data and classification of plant communities in the system
- An overview over vegetation of the Earth, Europe and Slovenia.

Transferable/Key Skills and other attributes:

- Ability to understand the key issues in geobotany
- Capability to measure and understand the environmental factors affecting the vegetation
- Ability to use the vegetation sampling methodology
- Ability to use different methods for elaboration of vegetation data
- Capability to recognize vegetation types at different hierarchical levels.

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Metode poučevanja in učenja:**Learning and teaching methods:**

- Predavanja
- Terenske vaje

- Lectures
- Field work

Načini ocenjevanja:Delež (v %) /
Weight (in %)**Assessment:**

<ul style="list-style-type: none">• Seminarska naloga in zagovor• Praktični kolokvij• Pisni izpit	30 30 40	<ul style="list-style-type: none">• Seminar essay and its defense• Practical partial exam• Written exam
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Materialni pogoji za izvedbo predmeta :

- *Multimedijska predavalnica*
- *Ekскурzije na teren*

Material conditions for subject realization

- *Lecture room with multimedia facilities*
- *Field excursions*

Obveznosti študentov:

- (pisni, ustni izpit, naloge, projekti)*
- Seminarska naloga in zagovor
 - Praktični kolokvij
 - Pisni izpit

Students' commitments:

- (written, oral examination, coursework, projects):*
- Seminar essay and its defense
 - Practical partial exam
 - Written exam