Univerza v Mariboru

Fakulteta za naravoslovje
in matematiko

UČNI NAČRT PREDMETA / COURSE SYLLABUS	
Predmet:	**Fitocenologija**
Course title:	**Phytocenology**

Študijski program in stopnja Study programme and level	Študijska smer Study field	Letnik Academic year	Semester Semester
Enovit magistrski študijski program druge stopnje Predmetni učitelj	**/**		
Five-year master's degree program Subject Teacher	**/**		

Vrsta predmeta / Course type Izbirni / Elective

Univerzitetna koda predmeta / University course code:

Predavanja Lectures	Seminar Seminar	Vaje Tutorial	Lab. vaje Laboratory work	Terenske vaje Field work	Samost. delo Individ. work	ECTS
15	**15**			**15**	**135**	**6**

Nosilec predmeta / Lecturer: Sonja ŠKORNIK

Jeziki / Languages:		
	Predavanja / Lectures:	slovenski / slovene
	Vaje / Tutorial:	slovenski / slovene

Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:	**Prerequisits:**
Jih ni.	None.

Vsebina:	**Content (Syllabus outline):**
Fitocenologija je veda o rastlinskih združbah, o njihovi sestavi, razmerju do okolja, razvoju in razširjenosti v času in prostoru. Je hkrati tudi veda, ki se ukvarja z uvrščanjem rastlinskih združb v sistem rastlinskih združb (t.i. sinsistem). V okviru predmeta bodo predstavljeni: - osnovni koncepti in definicije v fitocenologiji in zgodovina nastanka in razvoja vede. - Obravnavane bodo metodologije vzorčenja, obdelave vegetacijskih podatkov in oblikovanja sistema rastlinskih združb. - Študenti se bodo seznanili s poglavitnimi tipi rastlinskih združb v Sloveniji. - Posebej bodo predstavljene ogrožene rastlinske združbe v Sloveniji: vzroki za ogroženost, njihovo varovanje in upravljanje z njimi.	Phytocoenology is the study of the plant communities, their structure, relationship with environment, development and their distribution in time and space. It is also study, which deals with the classification of plant communities in synsystem. In the frame of this subject - the basic concepts and definitions in phytocoenology will be presented and also the history of its development. - The methodologies for sampling and analyzing the vegetation data as well as for the creation of synsytem of pant communities will be presented and discussed. - Students will make acquaintance with the principal types of plant communities in Slovenia

Znanja, pridobljena na predavanjih, bodo študenti utrdili in poglobili na seminarjih in pri terenskem pouku.	- Plant communities at risk in Slovenia will be presented: main reasons for their endargement, their conservation and managemnt. The knowledge acquired on lectures will be used on seminars and field work.

Temeljni literatura in viri / Readings:

- Bohn, U., G. Gollub, C. Hettwer, Z. Neuhäuslová, T. Raus, H. Schlüter, H. Vegetation of Europe, Federal Agency for Nature Conservation, Bonn.
- Dierschke, H., 1994: Pflanzensoziologie. Ulmer, Stutgart.
- Ellenberg, H., 1996: Vegetation Mitteleuropas mit den Alpen.
- der Maarel, E. 2005: Vegetation Ecology, Blackwell publishing.
- Keddy, P.A., 2007: Plant and vegetation, Cambridge University Press.
- Mucina, L., G. Grabherr, S. Wallnöfer, 1993: Die Pflanzengesellschaften Österreichs. Teil I-III Wälder und Gebüsche. Gustav Fisher, Jena.
-Podani, J. 1993: Syn-tax-pc. Computer Programs for Multivariate data analysis in ecology and Systematics. Version 5.0. Budapest.
- 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 in kompetence:	**Objectives and competences:**
- Predstaviti koncept in osnovne definicije v fitocenologiji. - Predstaviti različne metode za vzorčenje vegetacije. - Predstaviti različne metode za obdelavo vegetacijskih podatkov s poudarkom na modernih numeričnih metodah. - Podati pregled nad rastlinskimi združbami Slovenije. - Predstaviti najbolj ogrožene tipe rastlinskih združb v Slovenije, njihovo varovanje in upravljanje z njimi.	- To present the basic concept and definitions in phytocoenology. - 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 main plant communities in Slovenia. - To present plant communities at risk in Slovenia, their conservation and management.

Predvideni študijski rezultati:	**Intended learning outcomes:**
Znanje in razumevanje: - Razumevanje koncepta fitocenologije. - Poznavanje metod za vzorčenje vegetacije, obdelavo podatkov in uvrščanje rastlinskih združb v sistem rastlinskih združb. - Prepoznavanje osnovnih tipov združb v Sloveniji. - Poznati najbolj ogrožene tipe vegetacije v Slovenije, razloge za njihovo ogroženost, načine njihovega varovanja in upravljanja z njimi. **Prenesljive/ključne spretnosti in drugi atributi:** - Understanding of concept of Phytocoenology. - Knowledge of methodology for vegetation sampling, elaboration of vegetation data and	**Knowledge and understanding:** - Understanding of concept of Phytocoenology. - Knowledge of methodology for vegetation sampling, elaboration of vegetation data and classification of plant communities in the system. - Recognition of basic plant communities in Slovenia. - Knowledge about the plant communities at risk in Slovenia, their conservation and management. **Transferable/Key Skills and other attributes:** - Ability to use the vegetation sampling methodology. - Ability to use different methods for elaboration of vegetation data. - Critical evaluation of methodology.

classification of plant communities in the system. - Recognition of basic plant communities in Slovenia. - Knowledge about the plant communities at risk in Slovenia, their conservation and management.	- Ability of writing reports and presenting results in the frame of seminar work. - Proper use of terminology. - Acquisition of theoretical and practical knowledge of plant communities. - Recognition of basic plant communities in the field.

Metode poučevanja in učenja:	**Learning and teaching methods:**
- Predavanja - Seminarji - Terenske vaje	- Lectures - Seminar - Field excersises

Načini ocenjevanja:	Delež (v %) / Weight (in %)	**Assessment:**
Način (pisni izpit, ustno izpraševanje, naloge, projekt)		Type (examination, oral, coursework, project):
- Seminarska naloga in predstavitev	30	- Seminar essay and its presentation
- Pisni izpit	70	- Written examination

Reference nosilca / Lecturer's references:

ŠKORNIK, Sonja, HARTMAN, Klavdija, KALIGARIČ, Mitja. Relation between CSR functional signatures of dry grasslands from two contrasting geological substrates = Relazione tra sigle funzionali CSR di pascoli aridi su due substrati geologici contrastanti. *Ann, Ser. hist. nat.*, 2010, vol. 20, št. 2, str. 101-112.

ŠKORNIK, Sonja, VIDRIH, Matej, KALIGARIČ, Mitja. The effect of grazing pressure on species richness, composition and productivity in North Adriatic Karst pastures. *Plant Biosyst. (Firenze, Testo stamp.)*, 2010, vol. 144, no. 2, str. 355-364.

ŠKORNIK, Sonja, ŠAJNA, Nina, KRAMBERGER, Branko, KALIGARIČ, Simona, KALIGARIČ, Mitja. Last remnants of riparian wooded meadows along the middle Drava River (Slovenia) : species composition is a response to light conditions and management. *Folia geobot.*, dec. 2008, vol. 43, no. 4, str. 431-445.

PIPENBAHER, Nataša, KALIGARIČ, Mitja, ŠKORNIK, Sonja. Functional comparision of the sub-Mediterranean illyrian meadows from two distinctive geological substrates = Confronto funzionale di praterie sub-mediterranee illiriche di due substrati geologici distinti = Funkcionalna primerjava submediteranskih ilirskih travnikov z dveh različnih geoloških podlag. *Ann, Ser. hist. nat.*, 2008, letn. 18, št. 2, str. 247-258.

PIPENBAHER, Nataša, KALIGARIČ, Mitja, ŠKORNIK, Sonja. Floristic and functional comparision of karst pastures and karst meadows from the North Adriatic Karst = Floristična in funkcionalna primerjava kraških pašnikov in kraških travnikov severnojadranskega Krasa. *Acta carsol.*, 2011, letn. 40, št. 3, str. 515-525.

KALIGARIČ, Mitja, MEISTER, Margit H., ŠKORNIK, Sonja, ŠAJNA, Nina, KRAMBERGER, Branko, BOLHÁR-NORDENKAMPF, Harald R. Grassland succession is mediated by umbelliferous colonizers showing allelopathic potential. *PlantBiosyst. (Firenze, Testo stamp.)*, 2011, vol. 145, no. 3, str. 688-698.