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
Univerzitetni študijski program Biologija, 1. stopnja		**2.; 2nd**	**4.; 4th**
Undergraduate university programme Biology, 1st degree			

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.	No.

Vsebina:	**Content (Syllabus outline):**
Fitocenologija je veda o rastlinskih združbah/tipih vegetacije, 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). **Rastlinske združbe (tipi vegetacije) so osnova, na katerih so definirani habitatni tipi, poznavanje habitatnih tipov na določenem območju pa je osnova oblikovanja območij varovanja narave npr. NATURA 2000 območij, krajinskih parkov** inp. V okviru predmeta bodo predstavljeni:	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. **Plant communities (vegetation types) are also basis for habitat types categorization, knowledge of habitat types in a given area is basis for designation of special areas of nature conservation as Natura 2000 area or landscape park etc.** In the frame of this subject: - the basic concepts and definitions in

- 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 (in habitatni tipi) v Sloveniji: vzroki za ogroženost, njihovo varovanje in upravljanje z njimi. Znanja, pridobljena na predavanjih, bodo študenti utrdili in poglobili na seminarjih in pri terenskem pouku.	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 - Plant communities (and habitat types) at risk in Slovenia will be presented: main reasons for their endargement, their conservation and management. The knowledge acquired on lectures will be used on seminars and field work.

Temeljni literatura in viri / Readings:

- der Maarel, E. 2005: Vegetation Ecology, Blackwell publishing.
- Keddy, P.A., 2007: Plant and vegetation, Cambridge University Press.
- 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 in na njih osnovanih habitatnih tipov v Sloveniji, 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 and habitat types 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/habitatnih tipov v Sloveniji, razloge za njihovo ogroženost, načine njihovega varovanja in upravljanja z njimi. **Prenesljive/ključne spretnosti in drugi atributi:** • Sposobnost uporabe primerne metode vzorčenja vegetacije. • Sposobnost izbire ustreznih različnih metod za obdelavo podatkov o vegetaciji. • Kritična izbira usterzne metodologije. • Sposobnost pisanja poročil in predstavitve rezultatov v okviru seminarske naloge. • Uporaba ustrezme terminologije. • Pridobitev teoretičenga in praktičnega znanja o ratslinskih združbah. • Prepoznavanje izbranih temeljnih rastlinskih združb v naravi.	**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/habitat types 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. • 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	40	- Seminar essay and its presentation
- Pisni izpit	60	- Written examination

Reference nosilca / Lecturer's references:

1. PIPENBAHER, Nataša, MASON, Norman W. H., ŠKORNIK, Sonja. Floristic and functional diversity of meadows from two neighboring biogeographic regions. *Annales, Series historia naturalis*, ISSN 1408-533X, 2014, letn. 24, št. 1, str. 49-60, ilustr. http://zdjp.si/sl/docs/annales/naturalis/n24-1/pipenbaher-mason-skornik.pdf. [COBISS.SI-ID 1536839364]

2. PIPENBAHER, Nataša, KALIGARIČ, Mitja, MASON, Norman W. H., ŠKORNIK, Sonja. Dry calcareous grasslands from two neighboring biogeographic regions: relationship between plant traits and rarity. *Biodiversity and conservation*, ISSN 0960-3115, 2013, vol. 22, iss. 10, str. 2207-2221, doi: 10.1007/s10531-013-0520-6. [COBISS.SI-ID 19978504]

3. MASON, Norman W. H., PIPENBAHER, Nataša, ŠKORNIK, Sonja, KALIGARIČ, Mitja. Does complementarity in leaf phenology and inclination promote co-existence in a species-rich meadow? : evidence from functional groups. *Journal of vegetation science*, ISSN 1100-9233. [Print ed.], Jan. 2013, vol. 24, iss. 1, str. 94-100, ilustr. http://onlinelibrary.wiley.com.ezproxy.lib.ukm.si/doi/10.1111/j.1654-1103.2012.01451.x/pdf, doi: 10.1111/j.1654-1103.2012.01451.x. [COBISS.SI-ID 19304968]

4. PIPENBAHER, Nataša, ŠKORNIK, Sonja, CARVALHO, Gustavo Henrique de, BATALHA, Marco Antônio. Phylogenetic and functional relationships in pastures and meadows from the North Adriatic Karst. *Plant ecology*, ISSN 1385-0237, 2013, vol. 214, iss. 4, str. 501-519, doi: 10.1007/s11258-013-0185-y. [COBISS.SI-ID 19716616]

5. 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. *Annales, Series historia naturalis*, ISSN 1408-533X, 2010, vol. 20, št. 2, str. 101-112, ilustr. [COBISS.SI-ID 18252040]