



Univerza v Mariboru

Fakulteta za naravoslovje
in matematiko

UČNI NAČRT PREDMETA / COURSE SYLLABUS

Predmet:	Izbrana poglavja iz krajinske ekologije
Course title:	Selected Topics in Landscape Ecology

Študijski program in stopnja Study programme and level	Študijska smer Study field	Letnik Academic year	Semester Semester
Doktorski študij Ekološke znanosti, 3. stopnja	EKOLOŠKE ZNANOSTI	1. ali 2.;	1.- 4.;
Doctoral Study Ecological Sciences, 3rd degree	ECOLOGICAL SCIENCES	1st or 2nd	1st-4th

Vrsta predmeta / Course type:

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
10	10	10	/	/	150	6

Nosilec predmeta / Lecturer:

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

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

Vsebina:
Obravnavana so izbrana poglavja iz naslednjih sklopov. Krajina z ekološke perspektive. Fizični dejavniki ki oblikujejo krajino. Struktura krajine: prostorski vzorci in koridorji. Velikost in oblika, časovna komponenta. Mreža in heterogenost krajinskih vzorcev. Metapopulacije in fragmentacija krajinskih elementov. Vloga človeka v krajini. Pretok med elementi krajine. Delovanje krajine kot makro-sistema. Spremembe v krajini. Upravljanje s krajino.

Content (Syllabus outline):
Selected topics in the following chapters are discussed. Landscape from the ecological perspective. Physical factors, shaping the landscape. Landscape structure: spatial patches and corridors. Size and shape of patches, temporal component. Network and heterogeneity of landscape patches. Human role in the landscape. Flows between landscape elements. Functioning of landscape as macro-system. Changes in landscape. Landscape management.

Temeljni literatura in viri / Readings:

Farina, A., 1998. Principles and Methods in Landscape Ecology, Chapman & Hall, London.
 Francis R.A. 2016. Urban landscape Ecology. Taylor Francis.
 Forman R. T. T., 1995. Land Mosaics, Cambridge University Press, Cambridge.
 Forman R. T. T., M. Godron, 1986: Landscape Ecology. John Wiley & Sons.
 Gergel, S. E., M. G. Turner, 2002: Learning landscape ecology. Springer Verlag.
 Hansen, A. J., F. Di Castri, 1992. Landscape Boundaries, Springer, New York.
 Jianguo L. W. W. Taylor, 2002. Integrating landscape ecology into natural resource management. Cambridge University press.
 Pignatti, S., 1994: Ecologia del Paesaggio. UTET, Roma.
 Turner, M. G., R. H. Gardner, R. V. O'Neil, 2001: Landscape ecology in theory and praxis. Springer.
 Whitefield, P., 2014: How to read the Landscape. Permanent Publication, UK.

Cilji in kompetence:

Študenti se podrobno seznanijo s principi krajinske ekologije in z gonilnimi silami, ki oblikujejo krajino.
 Študenti se podrobno seznanijo z elementi krajine, vzorci in procesi v krajini ter z osnovami upravljanja s krajino

Objectives and competences:

Students get advanced insights on principles of landscape ecology and of driving forces, which affect and create the landscape.
 Students learn in detail the landscape elements, patterns and processes within the landscape and get knowledge about the principles of landscape management

Predvideni študijski rezultati:

Znanje in razumevanje:

Študenti se naučijo osnove zgradbe in delovanja krajine kot makro-sistema.
 Študenti se seznanijo spremembe v krajini in poznajo osnove upravljanja s krajino

Prenesljive/ključne spretnosti in drugi atributi:

Študenti usvojijo izbrane metode in prakse v krajinski ekologiji in varovanju krajine

Intended learning outcomes:

Knowledge and understanding:

Students learn in detail the principal structure and functioning of the landscape as macro-system
 Students learn in detail the changes in landscape and get insights on the principles of landscape management

Transferable/Key Skills and other attributes:

Student capture selected methods and practices in landscape ecology and landscape conservation

Metode poučevanja in učenja:

Predavanja
 Terenske vaje

Learning and teaching methods:

Lectures
 Field work

Načini ocenjevanja:	Delež (v %) / Weight (in %)	Assessment:
Seminarska naloga in zagovor (predpogoj za pristop k izpitu)	50	Seminar essay and its defense (precondition For the oral examination)
Ustni izpit	50	Oral exam

Reference nosilca / Lecturer's references:

IVAJSIČ, Danijel, ŠAJNA, Nina, KALIGARIČ, Mitja. Primary succession on re-created coastal wetland leads to successful restoration of coastal halophyte vegetation. *Landscape and urban planning*, ISSN 0169-2046. [Print ed.], 2016, vol. 150, str. 79-86

KALIGARIČ, Mitja, IVAJSIČ, Danijel. Vanishing landscape of the "classic" Karst : changed landscape identity and projections for the future. *Landscape and urban planning*, ISSN 0169-2046. [Print ed.], 2014, vol. 132, str. 148-158

IVAJSIČ, Danijel, KALIGARIČ, Mitja. How to preserve coastal wetlands, threatened by climate change-driven rises in sea level. *Environmental management*, ISSN 0364-152X, 2014, vol. 54, iss. 4, str. 671-684

KALIGARIČ, Mitja, CULIBERG, Metka, KRAMBERGER, Branko. Recent vegetation history of the North Adriatic grasslands : expansion and decay of an anthropogenic habitat. *Folia geobot.*, June 2006, 41, 3, str. 241-258.

KALIGARIČ, Mitja, SEDONJA, Jožef, ŠAJNA, Nina. Traditional agricultural landscape in Goričko Landscape Park (Slovenia) : distribution and variety of riparian stream corridors and patches. *Landsc. urban plan.* [Print ed.], 21 March 2008, vol. 85, iss. 1, str. 71-78, ilustr

IVAJSIČ, Danijel, KALIGARIČ, Mitja, FANTINATO, Edy, DEL VECCHIO, Silva, BUFFA, Gabriella. The fate of coastal habitats in the Venice Lagoon from the sea level rise perspective. *Applied geography*, ISSN 0143-6228. [Print ed.], 2018, vol. 98, str. 34-42, ilustr., doi: 10.1016/j.apgeog.2018.07.005. [COBISS.SI-ID 24006152]

PAUŠIČ, Igor, KALIGARIČ, Mitja. Dry grassland land use treatment regime explains the occurrence of the green winged orchid, *Anacamptis morio* (L.) R. M. Bateman, Pridgeon & M. W. Chase in the Goričko Nature Park, NE Slovenia = Režim upravljanja s suhimi travišči določa pojavnost navadne kukavice, *Anacamptis morio* (L.) R. M. Bateman, Pridgeon & M. W. Chase v Krajinskem parku Goričko, SV Slovenija. *Folia biologica et geologica*, ISSN 1855-7996. [Tiskana izd.], 2015, letn. 56, št. 3, str. 137-148, ilustr. [COBISS.SI-ID [22114312](#)]

BATALHA, Marco Antônio, PIPENBAHER, Nataša, BAKAN, Branko, KALIGARIČ, Mitja, ŠKORNIK, Sonja. Assessing community assembly along a successional gradient in the North Adriatic Karst with functional and phylogenetic distances. *Oecologia* : in cooperation with the International association for ecology (Intecol), ISSN 0029-8549, 2015, vol. 178, iss. 4, str. 1205-1214, doi: [10.1007/s00442-015-3295-5](#). [COBISS.SI-ID [21281800](#)]