



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		1. ali 2.; 1st or 2nd	1. 2. ali 3. ; 1st, 2nd or 3rd
Doctoral Study Ecological Sciences, 3rd degree			

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
5	5				140	5

Nosilec predmeta / Lecturer:

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

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

Poznavanje splošne botanike in ekologije na ravni univerzitetnega programa

Prerequisites:

Knowledge of general botany and ecology at graduate level

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.
 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 Verlag.
 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 of 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 podrobno razumejo osnove zgradbe in delovanja krajine kot makro-sistema
 Študenti podrobno razumejo 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 understand in detail the principal structure and functioning of the landscape as macro-system
 Students understand in detail changes in landscape and get insights of 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, KALIGARIČ, Mitja, ŽIBERNA, Igor. Geographically weighted regression of the urban heat island of a small city. *Applied geography*, ISSN 0143-6228, 2014, vol. 53, str. 341-353, doi: [10.1016/j.apgeog.2014.07.001](https://doi.org/10.1016/j.apgeog.2014.07.001). [COBISS.SI-ID [20770824](https://www.cobiss.si/id/20770824)], [JCR, SNIP, Scopus do 19. 8. 2014: št. citatov (TC): 0, čistih citatov (CI): 0, čistih citatov na avtorja (CIAu): 0, normirano št. čistih citatov (NC): 0] kategorija: 1A1 (Z1, A'', A', A1/2); uvrstitev: Scopus (d,h), SSCI, MBP; tipologijo je verificiral OSICN točke: 50.18, št. avtorjev: 3

IVAJSIČ, Danijel, KALIGARIČ, Mitja. How to preserve coastal wetlands, threatened by climate change-driven rises in sea level. *Environmental management*, ISSN 0364-152X, 2014, str. [1-14], ilustr., doi: [10.1007/s00267-014-0244-8](https://doi.org/10.1007/s00267-014-0244-8). [COBISS.SI-ID [20339208](https://www.cobiss.si/id/20339208)], [JCR, SNIP, Scopus do 21. 3. 2014: št. citatov (TC): 0, čistih citatov (CI): 0, čistih citatov na avtorja (CIAu): 0, normirano št. čistih citatov (NC): 0] kategorija: 1A3 (Z1); uvrstitev: SCI, Scopus, MBP; tipologija ni verificirana točke: 40, št. avtorjev: 2

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, ilustr., doi: [10.1016/j.landurbplan.2014.09.004](https://doi.org/10.1016/j.landurbplan.2014.09.004). [COBISS.SI-ID [20808712](https://www.cobiss.si/id/20808712)], [JCR, SNIP, Scopus do 20. 10. 2014: št. citatov (TC): 0, čistih citatov (CI): 0, čistih citatov na avtorja (CIAu): 0, normirano št. čistih citatov (NC): 0] kategorija: 1A1 (Z1, A'', A', A1/2); uvrstitev: SSCI, SCI, Scopus, MBP; tipologija ni verificirana točke: 85, št. avtorjev: 2

COUSINS, Sara A. O., KALIGARIČ, Mitja, BAKAN, Branko, LINDBORG, Regina. Political systems affect mobile and sessile species diversity - a legacy from the post-WWII period. *PloS one*, ISSN 1932-6203, 2014, vol. 9, iss. 8, str. e103367-1-e103367-7. <http://www.plosone.org/article/fetchObject.action?uri=info%3Adoi%2F10.1371%2Fjournal.pone.0103367&representation=PDF>, doi: [10.1371/journal.pone.0103367](https://doi.org/10.1371/journal.pone.0103367). [COBISS.SI-ID [20770568](https://www.cobiss.si/id/20770568)], [JCR, SNIP, WoS do 1. 9. 2014: št. citatov (TC): 0, čistih citatov (CI): 0, čistih citatov na avtorja (CIAu): 0, normirano št. čistih citatov (NC): 0] kategorija: 1A1 (Z1, A', A1/2); uvrstitev: SCI, Scopus, MBP; tipologijo je verificiral OSICB točke: 44.03, št. avtorjev: 4
