Univerza v Mariboru

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Fakulteta za naravoslovje in matematiko

UČNI NAČRT PREDMETA / COURSE SYLLABUS	
Predmet:	Krajinska ekologija
Course title:	Landscape Ecology

Študijski program in stopnja Study programme and level	Študijska smer Study field	Letnik Academic year	Semester Semester
Biologija in ekologija z naravovarstvom, 2. stopnja	/	1	2
Biology and Ecology with Nature Conservation, 2nd Level	/	1	2

Vrsta predmeta / Course type	Obvezen / obligatory
Univerzitetna koda predmeta / University course code:	

Predavanja Lectures	Seminar Seminar	Sem. vaje Tutorial	Lab. vaje Laboratory work	Teren. vaje Field work	Samost. delo Individ. work	ECTS
30	15			30	105	6

Nosilec predmeta / Lecturer:	Mitja Kaligarič

Jeziki / Languages:	**Predavanja / Lectures:**	**Slovenski/Slovenian**
	Vaje / Tutorial:	**Slovenski/Slovenian**

Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:	**Prerequisits:**
Jih ni.	No.

Vsebina:

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):

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 heterogenity of landscape patches. Human role in the l
Flows between landscape elements. Functioning of landscape as macrolandscape.
Landscape management.
Landscape Boundaries

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 ecologyinto natural resource management. Cambridge University press.
Pignatti, S., 1994: Ecologia del Paesaggio. UTET, Roma.
Ross M.a., Turner M.r. , Mladenoff M.J., Wiens, J.A., 2006: Foundation Papers in Landscape Ecology.
Turner, M. G., R. H. Gardner, R. V. O'Niel, 2001: Landscape ecology in theory and praxis. Springer

Cilji in kompetence:

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

Objectives and competences:

Students get insights of principles of landscape ecology and of driving forces, which affect and create the landscape
Students learn the landscape elements, patterns and processes within the landscape end get knowledge about the principles of landscape management

Predvideni študijski rezultati:

Znanje in razumevanje:
Študenti razumejo osnove zgradbe in delovanja krajine kot makro-sistema
Študenti razumejo spremembe v krajini in poznajo osnove upravljanja s krajino

Prenesljive/ključne spretnosti in drugi atributi:
Študenti usvojijo nekaj glavnih metod in praks v krajinski ekologiji in varovanju krajine

Intended learning outcomes:

Knowledge and Understanding:
Students understand the principal structure and functioning of the landscape as macro-system
Students understand changes in landscape and get insights of the principles of landscape management

Transferable/Key Skills and other attributes:
Student capture the most important methods and practices in landscape ecology and landscape conservation

Metode poučevanja in učenja:	**Learning and teaching methods:**
Predavanja Seminarske vaje Terenske vaje	Lecutres Seminar exercises Field exercises

Načini ocenjevanja:	Delež (v %) / Weight (in %)	**Assessment:**
Kolokvij iz terenskega dela Seminarska naloga in zagovor Ustni izpit	**30** **30** **40**	Partial exam of field work Seminar essay and its defense Oral exam

Reference nosilca / Lecturer's references:

Mitja Kaligarič:

IVAJNŠIČ, Danijel, COUSINS, Sara A. O., KALIGARIČ, Mitja. Colonization by Robinia pseudoacacia of various soil and habitat types outside woodlands in a traditional Central-European agricultural landscape. *Pol. J. Ecol.*, 2012, vol. 60, iss. 2, str. 301-309.

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, ilustr.

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

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, ilustr.

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.