



Univerza v Mariboru

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 cycle	/	1	2

Vrsta predmeta / Course type:

Univerzitetna koda predmeta / University course code:

Predavanja Lectures	Seminar Seminar	Laboratorijske vaje Lab work	Klinične vaje work	Terensko delo Field work	Samost. delo Individ. work	ECTS
30	15	15		15	105	6

Nosilec predmeta / Lecturer:

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

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

Jih ni.

Prerequisites:

None.

Vsebina:

Content (Syllabus outline):

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.

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 I Flows between landscape elements. Functioning of landscape as macrolandscape.
Landscape management.
Landscape Boundaries

Temeljni literatura in viri / Readings:

Forman R. T. T., M. Godron, 1986: Landscape Ecology. John Wiley & Sons.
Turner, M. G., R. H. Gardner, R. V. O'Neil, 2015: Landscape ecology in theory and praxis. Springer

Priporočena literatura
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.
Ross M.a., Turner M.r. , Mladenoff M.J., Wiens, J.A., 2006: Foundation Papers in Landscape Ecology.
Gergel, S. E., M. G. Turner, 2002: Learning landscape ecology. Springer Verlag.
Farina, A., 1998. Principles and Methods in Landscape Ecology, Chapman & Hall, London.

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 and get knowledge about the principles of landscape management

Predvideni študijski rezultati:

Intended learning outcomes:

Znanje in razumevanje:

Študenti znajo:

- opisati osnovno zgradbo in delovanja krajine kot makro-sistema.
- ovrednotiti spremembe v krajini (krajinska dinamika) 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

Knowledge and understanding:

Students are able to:

- describe the principal structure and functioning of the landscape as macro-system.
- evaluate the changes in landscape (landscape dynamics) 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:

Predavanja
Seminarske vaje
Laboratorijske vaje
Terenske vaje

Learning and teaching methods:

Lecturs
Seminar exercises
Laboratory exercises
Field exercises

Načini ocenjevanja:

Delež (v %) /

Weight (in %) /

Assessment:

Kolokvij iz terenskega in laboratorijskega dela	25	Partial exam of laboratory and field work
Seminarska naloga in zagovor	25	Seminar essey and its defense
Pisni izpit	50	Written exam

Reference nosilca / Lecturer's references:

IVAJNIŠIČ, 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, 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.

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](#)]