Univerza v Mariboru

Fakulteta za naravoslovje in matematiko

UČNI NAČRT PREDMETA / COURSE SYLLABUS	
Predmet:	**Biodiverziteta**
Course title:	**Biodiversity**

Študijski program in stopnja Study programme and level	Študijska smer Study field	Letnik Academic year	Semester Semester
Biologija, 1. stopnja		**3**	**5**
Biology, 1st degree			

Vrsta predmeta / Course type Obvezni / Obligatory

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
45			**30**		**105**	**6**

Nosilec predmeta / Lecturer: Tina KLENOVŠEK

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

Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:	**Prerequisits:**
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Vsebina:	**Content (Syllabus outline):**
• Definicija in razvoj pojma biodiverziteta • Nastanek, pomen in aktualnost Konvencije o biološki raznovrstnosti • Aktualna problematika biodiverzitete; vzroki upadanja biodiverzitete in izumiranja vrst; strategije in ukrepi ohranjanja biodiverzitete od globalnega do lokalnega nivoja • Nivoji biodiverzitete: genetski, vrstni in ekosistemski • Vrstna pestrost in klasifikacija organizmov: pregled zgodovine, endosimbiotska teorija, filogenetska delitev • Genetska pestrost na nivoju osebkov, populacij in vrst	• Definition and evolution of the concept of biodiversity • Origin, importance and relevance of the Convention on Biological Diversity • Current issues of biodiversity; causes of the decline in biodiversity and extinction of species; strategies and action plans to maintain biodiversity from a global to local level • Biodiversity on the genetic level, within and between species diversity, and ecosystem diversity • Diversity and classification of organisms: an overview of the history, endosymbiotic theory, phylogenetic classifications • Genetic diversity at the level of specimens, populations

• Biodiverziteta v globalnem merilu: temelji ekološkega in evolucijskega ozadja; • Vzorci biodiverzitete v odnosu do velikosti površine ozemlja, geografskih gradientov in drugih dejavnikov • Indeksi pestrosti • Ekosistemske funkcije in usluge • Študije primerov	and species • Biodiversity on a global scale: ecological and evolutionary background; • Patterns of biodiversity in relation to the surface area, geographical gradients and other factors • Diversity indices • Ecosystem functions and services • Case studies

Temeljni literatura in viri / Readings:

- Dobson, A. P., 1995: Conservation and Biodiversity. American Scientific Library, New York.
- Kryštufek, B. 1999: Osnove varstvene biologije. Tehniška založba Slovenije, Ljubljana.
- Levin, S. A. 2001: Encyclopedia of biodiversity. Academic Press, cop. San Diego.
- Sodhi N.S., P.R. Ehrlich 2010. Conservation Biology for All. Oxford University Press.
- Rosenzweig, M.L., (različne izdaje) Species Diversity in Space and Time. Cambridge University Press, New York

Cilji in kompetence:	**Objectives and competences:**
• Študenti poznajo in razumejo osnovne pojme in koncepte povezane z biodiverziteto • Poznajo in razumejo naravne dejavnike biodiverzitete in antropogene grožnje biodiverziteti • Spoznajo kazalnike biodiverzitete in biogeografsko porazdelitev biodiverzitete • Seznanijo se s stanjem biodiverzitete in konvencijami, strategijami in ukrepi za ohranjanje biodiverzitete	• Students know and understand basic issues and concepts connected to biodiversity • Know and understand natural drivers of biodiversity and anthropogenic threats to biodiversity • Students get knowledge about indices of biodiversity and biogeographic distribution of biodiversity • Students get insight about current status of biodiversity and learn about conventions, stategies and measures regarding the conservation of biodiversity

Predvideni študijski rezultati:	**Intended learning outcomes:**
Znanje in razumevanje:	**Knowledge and understanding:**
• Študent dobi pregled nad definicijami, pomenom in pomembnostjo biodiverzitete na globalni, EU in nacionalni ravni • Pozna možne ukrepe in strategije za ohranjanje biodiverzitete na različnih nivojih • Spozna mednarodne konvencije s področja biodiverzitete • Študent razume naravne in antropogene gonilne sile biodiverzitete	• Students get an overwiew on the definitions, meaning and importance of biodiversity on a global, EU and national scale • Get familiar with startegies and action plans for biodiversity conservation at different levels • Students learn about internatioinal conventions regarding biodiversity • Students learn about natural and anthropogenic driving forces of biodiversity

Metode poučevanja in učenja:	**Learning and teaching methods:**

• Predavanja • Laboratorijske vaje	• Lectures • Laboratory excersises

Načini ocenjevanja:	Delež (v %) / Weight (in %)	**Assessment:**
• Seminarska naloga • Pisni izpit	50 50	• Seminar essay • Written exam

Reference nosilca / Lecturer's references:

KLENOVŠEK T, JOJIĆ V. 2016. Modularity and cranial integration across ontogenetic stages in Martino's vole, *Dinaromys bogdanovi*. *Contributions to zoology*, 85 (3): 257-289.

KRYŠTUFEK B, JANŽEKOVIČ F, HUTTERER R, KLENOVŠEK T. 2017 Morphological evolution of the skull in closely related bandicoot rats : a comparative study using geometric morphometrics. *Hystrix : the italian journal of mammalogy*, 27 (2): 1-7.

KRYŠTUFEK B, KLENOVŠEK T, AMORI G, JANŽEKOVIČ F. 2015. Captured in "continental archipelago" : phylogenetic and environmental framework of cranial variation in the European snow vole. *Journal of zoology*, 297 (4): 270-277.

KLENOVŠEK T, KRYŠTUFEK B. 2013. An ontogenetic perspective on the study of sexual dimorphism, phylogenetic variability, and allometry of the skull of European ground squirrel, *Spermophilus citellus* (Linnaeus, 1766). *Zoomorphology*, 132 (4): 433-445.

KLENOVŠEK T. 2014. Skull modularity of the European ground squirrel Spermophilus citellus (Linnaeus, 1766) = Modularnost lobanje evropske tekunice *Spermophilus citellus* (Linnaeus, 1766). *Acta biologica slovenica*, 57 (1): 59-67.

KLENOVŠEK T, NOVAK T, ČAS M, TRILAR T, JANŽEKOVIČ F. 2013. Feeding ecology of three sympatric *Sorex* shrew species in montane forests of Slovenia. *Folia Zoologica*, 62 (3): 193-199.