Univerza v Mariboru

Fakulteta za naravoslovje in matematiko

UČNI NAČRT PREDMETA / COURSE SYLLABUS	
Predmet:	Etologija
Course title:	Ethology

Študijski program in stopnja Study programme and level	Študijska smer Study field	Letnik Academic year	Semester Semester
Enovit magistrski študijski program druge stopnje Predmetni učitelj	/		
Five-year master's degree program Subject Teacher	/		

Vrsta predmeta / Course type	Izbirni/Elective
Univerzitetna koda predmeta / University course code:	

Predavanja Lectures	Seminar Seminar	Vaje Tutorial	Lab. vaje Laboratory work	Druge oblike študija	Samost. delo Individ. work	ECTS
30			15		135	6

Nosilec predmeta / Lecturer:	Vesna Klokočovnik

Jeziki / Languages:	**Predavanja / Lectures:**	**slovenski / slovene**
	Vaje / Tutorial:	**slovenski / slovene**

Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:	**Prerequisits:**
Poznavanje osnov zoologije. Poznavanje metod dela v fiziologiji živali.	Knowledge of fundamentals of zoology. Knowledge of methods of animal physiology.

Vsebina:	**Content (Syllabus outline):**

- Iz zgodovine študija vedenja živali
- Raznolikost vedenja
- Vedenje in dednost
- Razvoj vedenja
- Živčne osnove vedenja
- Organizacija vedenja
- Trendi v evoluciji vedenja
- Evolucija adaptacij. Evolucija komunikacij
- Izbira habitata, migracije, teritorialnost
- Adaptivno prehranjevalno vedenje
- Adaptacije na plenilstvo
- Razmnoževalne strategije; ekologija razmnoževanja
- Skrb za potomstvo
- Ekologija socialnega vedenja
- Etološke osnove vedenja človeka

- On the history of the study of animal behaviour
- The diversity of behaviour
- The genetics of behaviour
- The developement of behaviour
- The neural basis of behaviour
- The organization of behaviour
- The evolution of behaviour: historical pathways
- The evolution of adaptations and communication
- Habitat selection, migration, territoriality
- Adaptive feeding behaviour
- Coping with predators
- Reproductive tactics; the ecology of mating system
- Care for offspring
- The ecology of social behaviour
- Ethological basis of human behaviour

Temeljni literatura in viri / Readings:

- Rubenstein, D.R., Alcock, J., (2018). Animal behavior. 11th ed. Oxford University Press.
- Manning, A., Stamp Dawkins, M. (2012). An introduction to animal behaviour. Cambridge University Press
- Davies, N. B., Krebs, J. R., West, S. A. (2012). An Introduction to Behavioural Ecology. Fourth edition. Wiely-Blackwell.
- Martin, P. R., Bateson, P. P. G. (2010). Measuring behaviour : an introductory guide. Cambridge University Press.

Cilji in kompetence:

- Razumejo metode, ki se uporabljajo pri študiju vedenja
- Usvojijo temeljna znanja za raziskovanje kompleksnosti vedenja
- Spoznajo, da se je vedenje med evolucijo spreminjalo
- Spoznajo področja, na katerih se aplicirajo znanja etologije (npr. sociologija, filozofija, psihologija)

Objectives and competences:

- Understand basic methods used in behavioural studies
- Acquire basic knowledge necessary to study complexity of behaviour
- Understand evolutionary trends in behaviour
- In addition, students get acquainted with the areas in which ethology is applied (e. g. sociology, philosophy, psychology)

Predvideni študijski rezultati:

Intended learning outcomes:

Znanje in razumevanje:	**Knowledge and understanding:**
• Razumejo povezavo med vedenjem in evolucijo • Spoznajo kompleksnost vedenja • Razumejo živčne osnove vedenja • Razumejo adaptivno vlogo plastičnosti vedenja • Razumejo pomen socialnega vedenja	• Understand relations between bahaviour and evolution • Become aware of the complexity of behaviour • Understand the neural basis of behaviour • Understand an adaptive role of plasticity of behaviour • Understand the significance of social behaviour
Prenesljive/ključne spretnosti in drugi atributi: • Sposobnost načrtovati in izvesti preproste eksperimente za testiranje odzivov živali na kontrolirane spremembe v njenem okolju • Sposobnost ovrednotiti rezultate etološkega poskusa	**Transferable/Key Skills and other attributes:** • Ability to arrange simple experiments testing behavioural responses of an animal to controlled changes of its environment. • Ability to evaluate results of behavioural experiment.

Metode poučevanja in učenja:	**Learning and teaching methods:**
• Predavanja • Laboratorijske vaje - individualno eksperimentalno delo	• Lectures • Laboratory exercises - individual experimental practice

Načini ocenjevanja:	Delež (v %) / Weight (in %)	**Assessment:**
Način (pisni izpit, ustno izpraševanje, naloge, projekt)		Type (examination, oral, coursework, project):
Praktično delo in seminarska naloga	50	Practical work and seminar essay
Pisni izpit	50	Written exam

Reference nosilca / Lecturer's references:

KLOKOČOVNIK, Vesna, DEVETAK, Dušan, ORLAČNIK, Marina. Behavioral plasticity and variation in pit construction of antlion larvae in substrates with different particle sizes. Ethology, Nov. 2012, vol. 118, iss. 11, str. 1102-1110, doi: 10.1111/eth.12012. [COBISS.SI-ID 19324936]

KLOKOČOVNIK, Vesna, HAUPTMAN, Gregor, DEVETAK, Dušan. Effect of substrate temperature on behavioural plasticity in antlion larvae. Behaviour, ISSN 0005-7959, 2016, vol. 153, issue 1, str. 31-48, doi: 10.1163/1568539X-00003322. [COBISS.SI-ID 21695496]

KLOKOČOVNIK, Vesna, DEVETAK, Dušan. Pit-builder vs non-pit-builder : advantage of trap building strategy in antlion larvae does not mean greater behaviour diversity. Behaviour, ISSN 0005-7959, 2014, vol. 151, issue 5, str. 653-668, ilustr. http://booksandjournals.brillonline.com/content/journals/10.1163/1568539x-00003156, doi: 10.1163/1568539X-00003156. [COBISS.SI-ID 20356872]

KLOKOČOVNIK, Vesna, ŠORGO, Andrej, DEVETAK, Dušan. Hands-on experiments on predatory behaviour with antlion larvae. Journal of Biological Education, ISSN 0021-9266, 2016, vol. 50, no. 4, str. 384-394, ilustr., doi: 10.1080/00219266.2015.1117513. [COBISS.SI-ID 21928200]