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**
Biologija in ekologija z naravovarstvom, 2. stopnja	**/**	**1/2**	**Poletni/ zimski**
Biology and Ecology with Nature Conservation, 2nd level	**/**	**1/2**	**Summer/ Winter**

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**
15	**15**		**15**		**135**	**6**

Nosilec predmeta / Lecturer:	Vesna Klokočovnik

Jeziki / Languages:	**Predavanja / Lectures:**	**Slovensko / Slovene**
	Vaje / Tutorial:	**Slovensko / Slovene**

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

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

Evolucijski pristop k študiju 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 Evolucijski pristop k študiju vedenja človeka	An evolutionary approach to 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 An evolutionary approach to human behaviour

Temeljni literatura in viri / Readings:

- MacKay, J. R. D. (2018). Animal Personality: The Science Behind Individual Variation. 5m Publishing
- 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:	**Objectives and competences:**
- 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) - Sposobnost načrtovati in izvesti preproste eksperimente za testiranje odzivov živali na kontrolirane spremembe v njenem okolju - Sposobnost ovrednotiti rezultate etološkega poskusa	- 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) - Ability to arrange simple experiments testing behavioural responses of an animal to controlled changes of its environments - Ability to evaluate results of a behavioural experiment.

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

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

Načini ocenjevanja:	Delež (v %) / Weight (in %)	**Assessment:**
Način (pisni izpit, ustno izpraševanje, naloge, projekt)		Type (examination, oral, coursework, project):
- Praktično deli 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, 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, 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, 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]