



Univerza v Mariboru

Fakulteta za naravoslovje  
in matematiko

### UČNI NAČRT PREDMETA / COURSE SYLLABUS

<b>Predmet:</b>	Osnove etologije
<b>Course title:</b>	Foundations of 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	Klinične vaje 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:

Jih ni.

Prerequisites:

None.

**Vsebina:**

- 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

**Content (Syllabus outline):**

- On the history of the study of animal behaviour
- The diversity of behaviour
- The genetics of behaviour
- The development 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. Wiley-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:**

- Znanje in razumevanje:
- Razumejo povezavo med vedenjem in evolucijo
  - Spoznajo kompleksnost vedenja
  - Razumejo živčne osnove vedenja

**Intended learning outcomes:**

- Knowledge and understanding:
- Understand relations between behaviour and evolution
  - Become aware of the complexity of behaviour
  - Understand the neural basis of behaviour

- Razumejo adaptivno vlogo plastičnosti vedenja  
 - Razumejo pomen socialnega vedenja

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

- Understand an adaptive role of plasticity of behaviour  
 - Understand the significance of social behaviour

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:**

- Predavanja  
 - Laboratorijske vaje - individualno eksperimentalno delo

**Learning and teaching methods:**

- Lectures  
 - Laboratory exercises - individual experimental practice

Delež (v %) /

**Načini ocenjevanja:**

Weight (in %)

**Assessment:**

Način (pisni izpit, ustno izpraševanje, naloge, projekt):	Delež (v %) / Weight (in %)	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]

