

Study program: Ecology			
Type and level of studies: Undergraduate academic studies (UAS)			
Course unit: E118 Animal Ecology			
Teacher in charge: prof. dr. Snežana B. Pešić			
Language of instruction: English			
ECTS: 6			
Semester: Summer			
Course unit objective Knowledge acquisition of normal functioning of natural systems (with focus on the regnum Animalia, from the aspects of the individual, the population, the life community, the ecosystem and the biosphere).			
Learning outcomes of Course unit Trained expert who mastered the field and laboratory work techniques, able to interpret field and laboratory results, trained logic (connecting and interpreting natural events and shapes with environmental conditions), learned to work teamwork and acquire knowledge about the animal world and its significance in ecosystems and biosphere at all.			
Course unit contents <i>Theoretical classes:</i> INTRODUCTION: Research area, definition, history and development, research levels in ecology. AUTEKOLOGY (IDIOECOLOGY): Ecological niche and life form. Ecological factors and animals. POPULATION ECOLOGY (DEMECOLOGY): Definition and basic characteristics of the population. Formal and functional elements of the structure of the population. Population theories. BIOCEENOLOGY: Biocenosis. Zoocenosis. ECOSYSTEMOLOGY: Ecosystems. Biomes, biochores and living areas (sea, fresh waters and land). BIOSPHEROLOGY: Biosphere. Anthropogenic impacts on the animals. <i>Practical classes:</i> AUTHECOLOGY: 1-3. Life forms and the ecological niche of insect larvae that develop in freshwater (Odonata, Ephemeroptera, Trichoptera, Plecoptera and Diptera - Chironomidae) and freshwater fish (<i>Salmo</i> sp., <i>Cottus gobio</i> , <i>Cobitis aurata</i> , <i>Nemacheilus barbatulus</i> , <i>Barbus meridionalis</i> , <i>B. barbus</i> , <i>Perca fluviatilis</i> , <i>Lepomis gibbosus</i> , <i>Esox lucius</i> , <i>Cyprinus carpio</i> , <i>Carassius carassius</i> and <i>Silurus glanis</i>). 4. Thermocline. 5. The temperature of the outside environment and the behavior of poikilotherm organisms (experiment with <i>Drosophila melanogaster</i>). 6. Dependency of developmental speed from the amount of available food and the size of the living space (experiment with <i>Tenebrio molitor</i> larvae). DEMECOLOGY: 7. The growth of the mixed population of the protozoa in limited conditions (experiment). 8. Marking and Lincoln's index as a method for determining the approximate population size. SINECOLOGY: 9. Methods of hunting in ecology; pitfall traps (terrain and laboratory). 10-11. Soil as environment (terrain and laboratory). 12-14. The lake/reservoir and the stream as environment (terrain and laboratory). 15. Collecting Arthropods from vegetation by methods of mowing and sweeping (terrain).			
Literature Krebs CJ. (1994): Ecology - The Experimental Analysis of Distribution and Abundance. 4th edition. HarperCollins College Publishers. Pešić S. (2011): The Fundamentals of Ecology. Faculty of Natural Sciences and Mathematics, Kragujevac. (in Serbian) - Smith RL & Smith TM. (2003): Elements of Ecology, Fifth edition. Benjamin Cummings, San Francisco. - Southwood TRE, Henderson PA. (2004): Ecological methods. 4th edition Blackwell Science. Townsend CR, Begon M & Harper JL. (2008): Essentials of Ecology. Third ed. Blackwell Publishing.			
Number of active teaching hours			
Lectures: 30	Practice: 30	Other forms of classes:	Independent work:
			Other classes:
Teaching methods Interactive teaching. Group and individual work. Verbal-textual teaching methodological approach, Power-point presentations, animations, video clips, seminars, consultations, field and laboratory work.			
Examination methods (maximum 100 points)			
Exam prerequisites	No. of points	Final exam	No. of points
Activity during the lectures	5	Written examination	20
Practical classes	10	Oral examination	35
Tests/colloquiums	30 (3x10)	Other	
Grading system			
Grade	No. of points	Description	
10	>= 91	Excellent	
9	81-90	Exceptionally good	
8	71-80	Very good	
7	61-70	Good	
6	51-60	Passing	
5	<=50	Failing	