NAME OF THE COURSE	Animal Ecology and Zoogeography					
Code	PMB242	Year of study	1			
Course teacher	Professor Mate Šantić, PhD	Credits (ECTS)	6.5			
Associate teachers		Type of instruction (number of hours)	L	S	E	F
			45		30	
Status of the course	Mandatory	Percentage of application of e-learning	10%			

COURSE DESCRIPTION	
Course objectives	Understanding interactions between animals and environments as well as function of the ecosystems. Recognize recent zoogeographical distribution of animals.
Course enrolment requirements and entry competences required for the course	None.
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	Student will be able to: 1. Determinate the influnece of various ecology range on survival. 2. Analyse influnence of various abiotic and biotic factors. 3. Understand biotic factors like predation, parasitsm, mutalism or amensalism. 4. Learn basic structure of community. 5. Understand level of food chain in fresh water ecosystems. 6. Recognize morphology adaption of animals in different life areas. 7. Understand importance of ecosystems and biomes to protect biodiversity. 8. Understand recent distribution of animals. 9. Distiguish fauna in different zoogeography region.
Course content broken down in detail by weekly class schedule (syllabus)	Lectures: 1. Introduction in ecology, living areas (atmosphere, water, land), biotopes, ecology ranges of different factors, ecosystem components form a hierarchy. 2. Autecology, influence of abiotic factors in environment (temeparture, pressure, salinity, pH, water content, oxygen). 3. Sinecology. Demecology, ecology population, interspecific and intraspecific relationships. 4. Communities. Community structure, factors influencing the structure of communities, biodiversity, food chain. 5. Biogeochemical cycles, thermodinamyc lows. 6. Ecology of ecosystem. Terrestrial, marine and freshwater ecosystems, ecosystem energetics. 7. Biomes. 8. Water ecosystems. Life in marine waters, abiotic factors in marine waters. Adriatic Sea, topography. 8. Planktonic organisms in marine waters, metabolism of marine ecosystem. pelagial and benthos. 9. Ecology of freshwater ecosystems. 10. Zoogeography. Introduction, areals. Climatic and geology influence of animal distribution. Faunistic kingdoms. Zoogeographical regions. 11. Notogaean - Australian region. 12. Neogaean - Neotropical region.

	13. Nearctic and Paleaarctic region 14. Ethiopian and Oriental region Arktogea. 15. Zoogeography of Croatia Exercises: 1. Population growth. Malthus exponential population growth. 2. Verhulst population growth. 3. Strategy of optimal catch. 4. Global climate change. Ecology problems. Greenhouse gases. 5. Influnece of sea temperature on fish population in Adriatic Sea. 6. Changes in ozon concentration. Influence of ozone decrease. 7. Influence of acid rains. 8. Different organisms adaptions living on marine benthos. 9. Recognize organisms collect on marine supra and medio - lithoral zone. 10. Recognize organisms collect on marine infra - lithoral zone. 11. Recognize organisms collect on freshwater lithoral zone. 12. Invasive species in Adriatic Sea. 13. Recent state of demersal resources in the Adriatic Sea. 14. Sustain econnomy of marine organisms. 15. Zoogeographical region. Video film projection.
Format of instruction	☒ lectures ☒ seminars and workshops ☐ exercises ☐ *on line* in entirety ☐ partial e-learning ☐ field work ☐ independent assignments ☐ multimedia ☒ laboratory ☐ work with mentor ☐ (other)
Student responsibilities	Attendance of lectures and exercises.

Screening student work *(name the proportion of ECTS credits for each activity so that the total number of ECTS credits is equal to the ECTS value of the course)*						
	Class attendance	3.5	Research		Practical training	1.5
	Experimental work		Report		Learning (Other)	1.5
	Essay		Seminar essay		(Other)	
	Tests		Oral exam		(Other)	
	Written exam		Project		(Other)	

Grading and evaluating student work in class and at the final exam	Test include checking knowledge from lectures, exercises and field training.

Required literature (available in the library and via other media)	**Title**	**Number of copies in the library**	**Availability via other media**
	Smith TM, Smith RL, 2006. Elements of ecology. 6editon. Pearson International edition.	1	
	Chapman J, Reis MJ, 2001. Ecology-principles and aplications. Cambridge university press.	1	
	Khrohne DT, 1998. General Ecology. Wadsworth Publishing Company.		

	Cox CB, Moore PD. Biogeography. An ecological and evolutionary approach. Blackwell Science, Oxford		
Optional literature (at the time of submission of study programme proposal)	Huxley, 1990. The atlas of worldlife. Mladinska knjiga, Zagreb. Burnie D, 2001. Animals. Illustrated encyklopedia. Mozaik knjiga, Zagreb.		
Quality assurance methods that ensure the acquisition of exit competences	Students surveys and consultations.		
Other (as the proposer wishes to add)			