

Course Unit Descriptor

Study Programme: Bachelor of Science in Biology, Bachelor of Science in Ecology			
Course Unit Title: Wildlife molecular forensics			
Course Unit Code: OBE021			
Name of Lecturer(s): Dr Vesna Milankov			
Type and Level of Studies: Bachelor Academic Degree			
Course Status (compulsory/elective): Elective			
Semester (winter/summer): Summer			
Language of instruction: English			
Mode of course unit delivery (face-to-face/distance learning): face-to-face			
Number of ECTS Allocated: 6			
Prerequisites: None			
Course Aims: The Wildlife molecular forensic subject focuses on the use of DNA profiling in wildlife forensic science by testing species and genetic linkage. The objective is the use of molecular markers and methods in wildlife conservation, endangered species and genetic assignment of individuals under wildlife crimes.			
Learning Outcomes: The course provides the students with the role of forensic science in wildlife crimes.			
Syllabus: <i>Theory</i> Conservation Genetics, Molecular Ecology, Molecular Phylogeny, Phylogeography and Taxonomy in wildlife forensics; wildlife DNA forensic science; role of non-human DNA in forensic science; performing DNA typing in wildlife investigations; genetic loci used in species testing; forensic and management applications of genetic identification; evaluation of DNA evidence in wildlife cases. <i>Practice</i> Wildlife forensic science testing; methods in wildlife forensic DNA analysis; nDNA, mtDNA and cpDNA in forensic science; DNA barcoding in assessment of management units and evolutionarily significant units; use of data on GenBank and sequence alignment; DNA taxonomy: pros and cons; use of NCBI / EMBL / DDBJ and BOLD base data; evaluation of relevant case study using scientific papers.			
Required Reading: 1. Milankov, V. (2007) Biološka evolucija. PMF, Novi Sad 2. Gennard, D. (2012) Forensic Entomology: An Introduction, 2nd Edition. Wiley-Blackwell 3. Linakre, A., Tobe Shanan, S. (2013) Wildlife DNA analysis: application in forensic science. Wiley-Blackwell.2.			
Weekly Contact Hours:	Lectures: 2	Practical work: 2	
Teaching Methods: Video beam and overhead presentation			
Knowledge Assessment (maximum of 100 points):			
Pre-exam obligations	points	Final exam	points
Active class participation		written exam	

Practical work		oral exam	70
Seminar	10	
Test(s)	20		
The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.			