

Study programme(s): MSc in Ecology			
Level: MSc studies			
Course title: Freshwater invertebrate fauna			
Lecturer: dr Tamara Jurca			
Status: elective			
ECTS: 7			
Requirements:			
Learning objectives The aims of the course is to learn about the freshwater invertebrate fauna, with the special attention to the dominant groups of organisms and indicator species.			
Learning outcomes After the course students should be capable of: - distinguishing among different groups of freshwater invertebrate fauna - successfully using the taxonomic keys for identification of lower taxonomic categories and characteristic genera and species - applying the taxonomic knowledge for assessments of diversity, freshwater quality and protection of freshwater ecosystems.			
Syllabus <i>Theoretical instruction</i> Origins of freshwater fauna. Invertebrate fauna composition at atypical freshwater habitats, ephemeral waters, hydrophilic fauna, psammon. Invertebrate fauna composition of underground streams and springs. Freshwater invertebrates of lotic habitats. Freshwater invertebrates of lentic habitats. Transitional invertebrate fauna. Horizontal and vertical zones of freshwater ecosystems and characteristic fauna. Neuston invertebrates. Periphyton invertebrates. Zooplankton, characteristic groups, seasonal dynamics, distribution, vertical migration and trophic webs. Cyclomorphosis. Zoobenthos and characteristic groups. Benthic communities of littoral and profundal zone. Freshwater mollusc fauna. Freshwater insect fauna. Bioindicator species of freshwater invertebrates. Rare and endangered species of freshwater invertebrates. <i>Practical instruction:</i> The practicals are based on developing skills for identification of major taxonomic groups of freshwater invertebrates and their most common species and genera.			
Literature 1. R. W. Pennak (1978): Fresh-water invertebrates of the United States. John Wiley & Sons. 2. Kriska, G. (2013): Freshwater invertebrates in Central Europe: A field guide. Springer-Verlag Wien.			
Weekly teaching load			Other:
Lectures: 2	Exercises:	Other forms of teaching: 4	
Teaching methodology Lectures - oral presentation using ppt and video bim, practical part – identification of freshwater macroinvertebrates collected during the field work exercise.			
Grading method (maximal number of points 100)			
During the semester	points	Final exam	points
activity during lectures	5	written exam	
practical exam	5	oral exam	50
seminar	40		