Course Unit Descriptor

Study Programme: MSc in Ecology

Course Unit Title: Freshwater invertebrate fauna

Course Unit Code: ME15

Name of Lecturer(s): Dr. Tamara Jurca

Type and Level of Studies: MSc studies

Course Status (compulsory/elective): elective

Semester (winter/summer): winter

Language of instruction: english

Mode of course unit delivery (face-to-face/distance learning): face-to-face

Number of ECTS Allocated: 7

Prerequisites: :

Course Aims:

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 indentification of lower taxonomic categories and characteristic genera and species

- appling the taxonomic knowledge for assessments of diversity, frehwater quality and protection of freshwater ecosystems.

Syllabus:

Theory

Origins of freshwater fauna. Invertebrate fauna composition at atipical freshwater habitats, ephemeral waters, hydrophilic fauna, psammon. Invertebrate fauna composition of underground streams and springs. Freshwater invertebrates of lotic habitats. Freshwater invertebrates of lenthic habitats. Transitional invertebrate fauna. Horisontal 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 communiteis of littoral and profundal zone. Freshwater mollusc fauna. Freshwater insect fauna. Bioindicator species of freshwater invertebrates. Rare and endangered species of freshwater invertebrates.

Practice

The practicals are based on developing skills for identification of major taxonomic groups of freshwater invertebrates and their most common species and genera.

Required Reading:

R. W. Pennak (1978): Fresh-water invertebrates of the United States. John Wiley & Sons.

Kriska, G. (2013): Freshwater invertebrates in Central Europe: A field guide. Springer-Verlag Wien.

Weekly Contact Hours:	**Lectures:2**	**Practical work: 4**

Teaching Methods: Lectures - oral presentation using ppt and video bim, practical part – identification of freshwater macroinvertebrates collected during the field work exercise.

Knowledge Assessment (maximum of 100 points):

Pre-exam obligations	points	**Final exam**	points
Active class participation	5	written exam	
Practical work	5	oral exam	50
Preliminary exam(s)		…….	
Seminar	40		

The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.