

## Faculty of Environmental Management and Agriculture

Course title: ANIMALS IN LANDSCAPE

ECTS credit allocation (and other scores): 2.0

Semester: spring

Level of study: ISCED-6 - first-cycle programmes (EQF-6)

Branch of science: Agricultural sciences

Language: English

Number of hours per semester: 30

Course coordinator/ Department and e-mail: dr hab. Agnieszka Kosewska, prof. UWM, Department of Entomology,

Phytophatology and Molecular Diagnostics; a.kosewska@uwm.edu.pl

Type of classes: classes and lectures

## Substantive content

CLASSES: Animals occurring in water ecosystems: watercourses, lakes, ponds. Characteristic of selected protozoan, annelid, mollusc, crustacean, fish and bird species. Fish species breeding in ponds. Amphibious animals: amphibians and their value for landscape architecture objects. Soil fauna — characteristics of selected protozoan and annelid species important in ecosystems. Animals occurring in natural and converted land ecosystems: fields, field groves, parks, cemeteries, and forests. Synanthropic animals. Farm animals. Using indicator species to estimate of environmental development and degradation. Identification of animals (field practices).

LECTURES: Complementary of plants and animals world. Nomenclature and classification of animals. Importance of simple animals (protozoans, sponges, cnidarians, and flatworms) in land and water ecosystems. Characteristic and value of roundworms, molluscs and annelids in ecosystems. Arthropods (crustaceans, spiders and insects) - characteristic, diagnostic, and importance. Vertebrates descriptions: distinctive features of fish, amphibians, reptilians, birds, and mammals. Value of vertebrates in natural and man-made landscape. Protected animal species and factors threatening their occurrence. Landscape architecture as a basic element of animal protection.

Learning purpose: Description of chosen animal species in landscape especially with the emphasis on human changed landscape

On completion of the study programme the graduate will gain:

Knowledge: Knowledge of animals and their taxonomy, morphology and significance in landscape.

Skills: Ability to identify animal species occurring in natural and anthropogenic ecosystems.

Social Competencies: Understanding of connection between habitats and fauna. Awareness of importance of landscape architecture in nature conservation

Basic literature: Hempel – Zawitkowska J. 2006. Zoologia dla uczelni rolniczych. PWN W-wa; Jura R. D. 1996. Bezkręgowce. WPWN; Szarski H. 1978. Anatomia porównawcza kręgowców. PWN W-wa; Szyszko J. (eds.) 2002. Architektura krajobrazu jako podstawowy element ochrony gatunków krajowych / Landscape Architecture as the basic element in the protection of native species. Fundacja "Rozwój SGGW". Warszawa

Supplementary literature: Schwerk A., Rylke J., Szyszko J. (eds.) 2006. Landscape architecture and regional planning as the basic determinant in the protection of native species – modeling of succession stages in forest and agricultural conditions / Nature 2000, architecture of landscape and planning of space as basic factor for protection of native animal species - modeling of the stages of succession in forest areas. Warsaw Agricultural University Press, Warsaw.



The allocated number of ECTS points consists of:

The allocated number of ECTS points consists of:

Contact hours with an academic teacher: 1.19 ECTS points

Student's independent work: 0.81 ECTS points