

Course title: PROTECTION AND SHAPING AGROEKOSYSTEM

ECTS credit allocation (and other scores): 2.0

Semester: autumn

Level of study: ISCED-7 - second-cycle programmes (EQF-7)

Branch of science: Agricultural sciences

Language: English

Number of hours per semester: 30

Course coordinator/ Department and e-mail: prof. dr hab. inż. Marek Marks, Department of Agroecosystems, marek.marks@uwm.edu.pl

Type of classes: classes and lectures

Substantive content

CLASSES: Students rely on the literature and the acquired knowledge to deliver presentations about the influence of abiotic and biotic factors on the agricultural environment, forecasts for the future and protective measures. Students learn about legal regulations relating to environmental management and protection (laws regulating environmental protection, nature conservation, fertilization, organic farming, etc.). Conflict between intensive farming and the preservation of agroecosystems and adjacent ecosystems (aquatic ecosystems, forests). The field-forest boundary and damage caused by hunting.

LECTURES: Basic concepts and definitions of nature and the environment. Factors and processes responsible for environmental change. The agricultural landscape and its components. Progress in agriculture and its influence on the agricultural landscape; loss of natural habitats and biological diversity. Soil degradation caused by nonagricultural (mechanical, hydrological, physical, chemical, thermal, etc.) and agricultural factors (acidification, weed propagation, loss of humus, mechanical degradation caused by compaction, chemical contamination due to incorrect use of fertilizers and pesticides, disrupted water relations, aridification, etc.), land protection and reclamation.

Learning purpose: amiliarize students with changes in agroecosystems and agricultural landscape caused by anthropopressure.

On completion of the study programme the graduate will gain:

Knowledge: The student has extensive knowledge of change processes in agroecosystems. The student identifies the threats associated with intensive farming. The student identifies the causes, magnitude and consequences of human activities on ecological systems and ecosystem diversity.

Skills: The student searches for, understands and uses information on agroecosystem management and protection. The student analyzes various phenomena in ecological systems and evaluates their influence on crop output and crop quality.

Social Competencies: The student recognizes the importance of agroecosystem management and protection in agricultural practice (field crop production, grassland management). The student understands and assumes responsibility for the present and future state of the agricultural environment. The student puts theoretical knowledge to practice in agricultural production.

Basic literature: Dobrzański G., Dobrzańska B.M., Kiełczewski D. 1997. Ochrona środowiska przyrodniczego. Wyd. Ekonomia i Środowisko, Białystok; Dubel K. 2001. Ochrona i kształtowanie środowiska. Fundacja Centrum Edukacji



Ekologicznej Wsi, Krosno; Marks M., Nowicki J. 2010. Pola uprawne i użytki zielone we współczesnym krajobrazie rolniczym. Acta Sci Pol., Administratio Locorum 9(3): 95-106; Ryszkowskiego L., Kędziory A. (red.). 2005. Ochrona środowiska w gospodarce przestrzennej. Zakład Badań Środowiska Rolniczego i Leśnego PAN, Poznań.

Supplementary literature: -

The allocated number of ECTS points consists of:

Contact hours with an academic teacher: 1.24 ECTS points

Student's independent work: 0.76 ECTS points