

Course title: ECOLOGICAL AGRICULTURE IN WATER PROTECTION

ECTS credit allocation (and other scores): 1.5

Semester: autumn

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

Branch of science: Agricultural sciences

Language: English

Number of hours per semester: 25

Course coordinator/ Department and e-mail: dr hab. inż. Bogumił Rychcik, Department of Agroecosystems, bogumil.rychcik@uwm.edu.pl

Type of classes: classes and lectures

Substantive content

CLASSES: Percentage of crops cultivated in Poland and trends of change. Economic importance and site requirements of cultivated plants. Rules of tillage and crop cultivation applied in ecological farming. Selection of species and cultivars for cultivation in ecological farms. Principles of elaboration of crop rotations in ecological farming. Fertilization and fertilizers used in ecological farming. Balance of organic matter and balance of main nutrients (N, P, K) in various agricultural systems and their effects on adjacent water ecosystems. Crops nurturing in ecological farming. Time and techniques of crop harvesting used in ecological farming.

LECTURES: Management systems used in agriculture. Distinctive features of conventional, integrated and ecological agriculture. Land use structure. Field arrangement within an ecological farm. Influence of infrastructure of surrounding areas and equipment availability as well as the kind and volume of production on protection of soil and water ecosystems. Importance of intercropping to soil and water protection. Legal regulations concerning ecological farming.

Learning purpose: Acquisition of knowledge concerning the importance of ecological farming in water ecosystem protection. Acquisition of knowledge about contemporary requirements concerning farm infrastructure, including sites for keeping farm manure.

On completion of the study programme the graduate will gain:

Knowledge: The student has advanced knowledge about the importance of environmental conditions and sustainable use of resources and knowledge of biodiversity at the farm level and factors that threaten the quality of the environment. The student is able to identify and assess natural and cultural values of the landscape.

Skills: He has the ability to communicate precisely with various subjects in verbal, written and graphic forms. He has the ability to select and modify typical activities, including agricultural technology in the field of environmental protection.

Social Competencies: He understands the need for lifelong learning, can inspire and organize the learning process of others. Correctly identifies and resolves dilemmas related to the protection and shaping of environments.

Basic literature: Tyburski J., Żakowska-Biemans S. 2007. Wprowadzenie do rolnictwa ekologicznego. Wyd. SGGW, Warszawa.

Supplementary literature: Rada WE, Rozporządzenie Rady (WE) nr 834/2007 z dnia 28 czerwca 2007 r. w sprawie produkcji ekologicznej i znakowania produktów ekologicznych; Komisja WE, Rozporządzenie Komisji (WE) nr 889/2008 z dnia 5 września 2008 r. ustanawiające szczegółowe zasady wdrażania rozporządzenia Rady (WE) nr 834/2007.



The allocated number of ECTS points consists of:

Contact hours with an academic teacher: 0.96 ECTS points

Student's independent work: 0.54 ECTS points