



Course title: DISEASES OF UTILITARIAN INSECTS

ECTS credit allocation (and other scores):2,5

Semester: spring

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

Branch of science: Agricultural sciences

Language: English

Number of hours per semester: 15 hours classes, 15 hours lectures

Course coordinator/ Department and e-mail: Department and e-mail: Department of Parasitology and Invasiology Diseases; sokol@uwm.edu.pl

Type of classes: classes and lectures

Substantive content

CLASSES: Students are familiarized with the morphology of bees and silkworms, equipment, beekeeping, bee products and the types of diseases, mainly the methods of their identification and control. They have the opportunity to familiarize themselves with the current cases of diseases detected in apiaries. They master the basics of disease control under the Act - the eradication of infectious diseases of bees. Practical classes are held in the apiary.

LECTURES: Lectures contain information about the history of beekeeping in Poland and world, get acquainted with the races of bees, biology of the bee colony, breeding silkworms and bumble bees, with the wider economy in apiary and bee products. The main content of the lectures is to acquaint students with illnesses of brood and adult bees, poisoning and pests of bees

Learning purpose: The students knows and describes the anatomy and biology of honey bees and silkworms. They knows the basics of honey bee physiology and conducts veterinary inspection of the apiary. Knows the rules of sampling the material for testing. Analyzes and knows the symptoms that may indicate the presence of bee and brood diseases and pests present in the apiary.

On completion of the study programme the graduate will gain: Ability to independent conduct an apiary control, recognize the symptoms that may indicate the presence of honeybee diseases in the apiary as well as in silkworm rearing. They will be able to act accordingly when there is a suspicion of specific bee diseases or bee poisoning.

Knowledge: The aim of the course is to prepare students to perform basic tasks regarding the health of honey bees and silkworms, which they may come across at work as a veterinarian. The aim of the course is to prepare for conducting an independent apiary control; recognize diseases or pests in the hive. They gain knowledge on how to act appropriately when there is a suspicion of certain bee diseases. They gain knowledge about the diagnosis of bee diseases and how to collect material for the study.

Skills: The students can describe the anatomy and physiology of insects. Have knowledge about their breeding. They knows the diagnostic methods used to diagnose bee and brood disease and the principles of preventing the spread of infectious animal diseases.

Social Competencies: Students know how to conduct apiary control; knows how to recognize the symptoms that may indicate the presence of diseases of adult bees and brood and silkworms. They knows how to deal with pests in the hive. Can diagnose and treat bee and silkworm diseases.



Basic literature: Sokół R., Michalczyk M. 2012. Choroby owadów użytkowych, Wydawnictwo UWM Olsztyn, Tomaszewska B., Chorbiński P. 2013. Choroby owadów użytkowych, Wydawnictwo UP Wrocław.

Supplementary literature:

The allocated number of ECTS points consists of: Redakcja Jarosław Prabucki, 1998. Pszczelnictwo. Wydawnictwo Albatros Szczecin, str. 908.

Contact hours with an academic teacher: Monday 10:00 – 13:00, Thursday 9:00 – 12:00

Student's independent work: observation of microscope slides of bee pathogens, laboratory testing of bee samples, apiary classes with honey bee families

The allocated number of ECTS points consists of:

Contact hours with an academic teacher: 55

Student's independent work: 25