Course Unit Descriptor

Study Programme: Phytomedicine

Course Unit Title: Insect Systematics and Medical Entomology

Course Unit Code: 19.FTM021

Name of Lecturer(s): Aleksandra Ignjatović Ćupina, full professor; Mihaela Kavran, Assistant Professor

Type and Level of Studies: Undergraduate academic studies, first level

Course Status (compulsory/elective): Compulsory

Semester (winter/summer):Winter

Language of instruction: Serbian, optionally English

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

Number of ECTS Allocated: 4

Prerequisites: None

**Course Aims:** Acquiring knowledge of systematics and etology of the class *Insecta*, the role of insects in rural and urban habitats, insects which affect human and animal health, pathogens and parasites transmitted by insects, basic concepts of their control.

**Learning Outcomes:** Acquisition of skills for identification of insects belonging to different orders, especially insect groups which affect human and animal health; Skills for inventorying the entomofauna composition in biodiversity studies; Qualifications for participation in teams dealing with recommendation and determination of control measures, as well as verification of the control results; Acquisition of fundaments necessary for the attendance to specialized courses in entomology; Qualifications for the participation in teams dealing with insect research and conception of control strategies.

## Syllabus:

Theory

Basic insect characteristics and division of Arthropods. Taxonomy, systematics, biology and behavior of different insect taxa. Estimation and regulation of population density, competition. Parasite/parasitoid – host and predator-host relations. Diversity, equilibrium and succession of insect communities. Insect orders of medical and veterinary importance. Diseases generated or transmitted by insects. Pathogens and parasites, mechanisms of disease transmission and modes of insects spreading. Venoms, defense secretions and allergens.

Practice

Laboratory exercises are based on individual work on identification of immature and adult insect stages. Methods of insect collecting (application in corresponding natural habitats), preserving and storing of insect collections

## **Required Reading:**

- Davies, R.G., (1988): Outlines of entomology. Chapman & Hall, London, UK. 408 pp
- Beutel R.G., Friedrich F., Ge S.Q., Yang X.K. (2014): Insect Morphology and Phylogeny. A textbook for students of entomology. Walter de Gruyter GmbH, Berlin, Germany. 516 pp.
- McGavin G.C.(2010):Essential Entomology. An Order-by-Order Introduction. Oxford University Press, UK. 318 pp.
- Petrić D., Ignjatović Ćupina A., Vuković M., Srdić Ž. (2007) Opšta entomologija-udžbenik, CD izdanje,
- Poljoprivredni fakultet, Univerzitet u Novom Sadu, 200 pp., (in Serbian)
- Petrić D., Ignjatović Ćupina A., Vuković M., Srdić Ž. (2007) Opšta entomologija-praktikum, CD izdanje, Poljoprivredni fakultet, Univerzitet u Novom Sadu, 50 pp. (in Serbian)
- Ignjatović Ćupina A. Petrić D. (2012) Ključ za familije nadklase Hexapoda, CD izdanje, Poljoprivredni fakultet, Univerzitet u Novom Sadu, 72 pp. (in Serbian)

Weekly Contact Hours:4	Lectures:2	Practical work:2		
Teaching Methods: The lessons and preparation for tests are performed by the use of modern teaching tools. Check of				
theoretical knowledge includes 6 tests related to study units, 2 tests which require the combining of acquired knowledge				
and 1 final test. Individual work is based on the use of the binocular/microscope and identification keys. Check of practical				
knowledge. Consultations related to theoretical/ practical lessons and preparation of seminars/ research work and projects.				
Knowledge Assessment (maximum of 100 points):				

Pre-exam obligations	points	Final exam	points	
Active class	22	written exam	20	
participation		witten exam	20	
Practical work	15	oral exam	10	
Preliminary exam(s)	23	insect collection	10	
Seminar(s)				
The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam,				
project presentation, seminars, etc.				