

<b>Study Programme:</b> Phytomedicine		
<b>Course Unit Title:</b> Surveillance and Prevention of Synanthropic Organisms		
<b>Course Unit Code:</b> 19.FT2011		
<b>Name of Lecturer(s):</b> Aleksandra Ignjatović Čupina, Full Professor		
<b>Type and Level of Studies:</b> Undergraduate academic studies, first level		
<b>Course Status (compulsory/elective):</b> Compulsory		
<b>Semester (winter/summer):</b> Summer		
<b>Language of instruction:</b> Serbian, optionally English		
<b>Mode of course unit delivery (face-to-face/distance learning):</b> Face-to-face		
<b>Number of ECTS Allocated:</b> 3		
<b>Prerequisites:</b> Agricultural zoology with ecology, Acarology and Nematology, Outlines of Entomology, Insect Systematics and Medical Entomology		
<b>Course Aims:</b> Acquaintance with harmful synanthropic animal species, their importance, biology, ecology and behavior; prevention of appearance and spreading, integral approach to surveillance of populations of pests, molestants, vectors and reservoirs of pathogenic agents they transmit.		
<b>Learning Outcomes:</b> Acquiring knowledge and skills in identification of synanthropic animal species, design and application of surveillance strategies for prevention of appearance, spreading and outbreaks of harmful native and invasive synanthropic organisms.		
<b>Syllabus:</b> <i>Theory</i> Groups of synanthropic animal organisms (insects, mites, ticks, rodents, birds), their economic, medical and veterinary importance (pests, molestants, vectors and reservoirs of pathogenic agents). Characteristics of breeding sites, biology and ecology (life cycle, seasonal dynamics, reproductive capacity and behavior) of the most important harmful synanthropic species. Surveillance strategies for prevention of appearance, spreading and outbreaks of harmful native and invasive synanthropic organisms. Specific methods of monitoring, selection of sites, frequency and techniques of monitoring populations of synanthropic organisms. Early detection and surveillance of invasive vector species and pathogens they transmit, application of modern techniques of integrated surveillance procedures, data collection, data bases, mapping and analysis. Examples of good practice. <i>Practice</i> Morphological identification of the most important synanthropic animal species. Acquaintance with practical application of monitoring methods in programs of surveillance of pests, molestants, vectors and reservoirs of pathogenic agents of importance for human and animal health. Case studies.		
<b>Required Reading:</b> <ul style="list-style-type: none"> <li>• Robinson W.H. (2005): Handbook of Urban Insects and Arachnids. Cambridge University Press, UK.</li> <li>• Lane R.P., Crosskey R.W. (1993): Medical Insects and Arachnids. Springer Science+Business Media Dordrecht.</li> <li>• Takken W., Knols B.G.J. (2010): Emerging pests and vector-borne diseases in Europe. Ecology and control of vector-borne diseases Volume 1. Wageningen Academic Publishers, Netherlands.</li> <li>• Matthews G. (2011): Integrated Vector Management Controlling Vectors of Malaria and Other Insect Vector Borne Diseases. Wiley-Blackwell, UK.</li> <li>• Schaffner F., Bellini R., Petrić D., &amp; Scholte E.-J. (2012): Guidelines for the surveillance of invasive mosquitoes, Technical report, Avia-GIS, Zoersel, Belgium. European Centre for Disease Prevention and Control, Stockholm, Sweden.</li> <li>• Goddard J. (2007): Physician's Guide to Arthropods of Medical Importance. CRC Press Taylor &amp; Francis Group, USA.</li> <li>• Bowman A.S., Nuttall P. (2008): Ticks: Biology, Disease and Control. Cambridge University Press, UK.</li> </ul>		
<b>Weekly Contact Hours:</b> 4	<b>Lectures:</b> 2	<b>Practical work:</b> 2
<b>Teaching Methods:</b>		

Lessons are given in form of oral presentations by computer, video beamer and other modern didactic tools. Practical classes involve individual work of students in identification of synanthropic species (by use of identification keys and binocular/microscope), visual demonstrations in laboratory.

**Knowledge Assessment (maximum of 100 points):**

<b>Pre-exam obligations</b>	points	<b>Final exam</b>	points
Active class participation	5	written exam	10
Practical work	5	oral exam	50
Preliminary exam(s)	20	.....	
Seminar(s)	10		

The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.