

**Karta opisu zajęć (sylabus)**

Field or fields of study	Plant protection and phytosanitary control
Name of the training module	Sanitary entomology
Language of instruction	english
Type of the training module (obligatory/optional)	optional
Level of the training module	Full-time studies II level
Year of study	stacjonarne
Semester	I
Number of ECTS credits with a division into contact/noncontact	1
Title/degree, name and surname of the person in charge	3 (1,7/1,3)
Unit offering the subject	Dr hab. Katarzyna Golan, associate prof.
Aim of the module	Plant Protection Department
Learning outcomes for the module are the description of the intended learning outcomes, skills and social competences that a student should achieve after the completion of the module should be provided.	The aim of the course is to provide pest species related to the environment of human life, to know their biology, habitats and niches of their occurrence
	Knowledge:
	1. He knows the pest species, their systematic, methods of preventing their occurrence and control
	2. He has general knowledge about the role and risks of pests and their determinants and their functioning in biocoenoses
	Skills:
	1. Can identify and determine the systematic involvement of sanitary pests
	2. Has the capacity to take measures to prevent and control sanitary pests
Social competences:	
1. He is aware of the importance of social, professional and ethical responsibility for the health of the human environment	
2. Understands the need for continuous education, working in a team, formulates opinions, participating in the discussion	
Preliminary and additional requirements	general biology; a course in some aspect of zoology, entomology
Contents of the training module	Characteristics of the main concepts and tasks of sanitary entomology. Sanitary entomology human history. Cockroaches - problems related to their occurrence, nuisance and control. Body louse, fleas - the risk of direct and transmitted diseases. Epidemiological role of flies, including mosquitoes. Buds, horseflies, midges. Ants - different species coming from outside.

	Hornets, wasps and other aculeata - a threat to human health. Other allergenic and parasitic arthropods (Bedbugs, Psocoptera, Argas sp. pigeons, ticks).
Recommended and obligatory reading list	<p>Obligatory reading list:</p> <ol style="list-style-type: none"> <li>1. Service M. 2012. Medical Entomology for Students. ISBN: 9781139416085</li> <li>2. Vector Control - Methods for Use by Individuals and Communities. World Health Organization. 1997. pp. 237–261.</li> <li>3. Pierce W. D. 2016. Sanitary Entomology PDF (<a href="https://booksinto.cf/articles/sanitary-entomology-pdf.html">https://booksinto.cf/articles/sanitary-entomology-pdf.html</a>) Cockroaches-Unhygienic scavengers in human settlements.</li> </ol> <p>Recommended reading list</p> <ol style="list-style-type: none"> <li>1. Khoso FN, Wong SK, Chia SL and Lau WH 2015. Assessment of non-biting synanthropic flies associated with fresh markets. Journal of Entomology and Zoology Studies; 3 (1): 13-20.</li> <li>2. Xavier A. S., R. Barbosa R., Barbosa C. G., Carvalho Q. M. M. 2015. Bionomy of two flies of sanitary and forensic importance: Peckia (Sarcodexia) Lambens (Wiedemann) and Oxysarcodexia amorosa (Schiner) (Diptera, Sarcophagidae). Revista Brasileirade Entomologia 59; 229–233.</li> <li>3. Enayati, A., Hemingway, J. 2010. <i>Malaria Management: Past, Present, and Future</i>. Annual Review of Entomology, Vol. 55, Issue. 1, p. 569.</li> <li>4. Journal of Medical Entomology   Oxford Academic <a href="https://academic.oup.com/jme/issue/58/6">https://academic.oup.com/jme/issue/58/6</a></li> <li>5. Steward A. 2012. Zbrodnie robali. Wydawnictwo W.A.B.; 288.</li> </ol>
The intended forms/activities/teaching methods	Laboratory exercises - work cards for the current exercises, work with illustrative material, multimedia presentation, films themed team work, discussion, lecture - a multimedia presentation, video theme
Methods of verification and documentation forms of the achieved learning outcomes	<p>K1, K2 - pass writing, preparing a presentation given issues</p> <p>S1, S2, S3 - Written pass,</p> <p>Sc1, Sc2 - discussion, assessment of involvement and individual and team work of the student</p> <p>Forms of documenting the achieved learning outcomes: student presentations, student's diary, written assignments</p>
Elements and weights influencing the final grade	<p>K1, K2 - pass writing, preparing a presentation given issues (60% of the assessment for passing the exercises). The grading scale in accordance with the Faculty's Instruction No. 1.0.</p> <p>S1, S2, S3 - Written pass,</p> <p>Sc1, Sc2 - discussion, assessment of involvement and</p>

	individual and team work of the student (40% of the assessment for passing the exercises)		
Workload in activities with direct participation of academic teachers	Form of classes	Number of hours	ECTS
	<b>CONTACT</b>		
	Lectures	15	0,60
	Courses	20	0,80
	Consultations	3	0,12
	Credit of multimedia presentations	2	0,08
	Examination/credit	2	0,08
	<b>Total contact</b>	<b>42</b>	<b>1,68</b>
	<b>NON-CONTACT</b>		
	Preparation for courses	10	0,40
	Preparation for multimedia presentation	13	0,52
	Preparation for credits	10	0,40
	<b>Total non-contact</b>	<b>33</b>	<b>1,32</b>
<b>Total ECTS</b>	<b>75</b>	<b>3,00</b>	
Workload in activities with direct participation of academic teachers	<ul style="list-style-type: none"> <li>- participation in lectures – 15 hrs</li> <li>- participation in auditorial classes – 10 hrs</li> <li>- participation in laboratory classes –10 hrs</li> <li>- participation in consultation hours – 3 hrs</li> <li>-credit of multimedia presentations –2 hrs</li> <li>-participation at credits - 2 hrs</li> </ul> Total 42 hours., which refers to 1.7 ECTS		
Reference of module outcomes to field study outcomes	W1, W2 - K_W03 U1 - K_U01, K_U04 U2 - K_U02 U3 - K_U03 K1 - K_K03 K2 - K_K01		