

M uu_uu	MOR S2_7/2
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	2nd degree, full-time studies
Year of study	I
Semester	I
Number of ECTS credits with a division into contact/noncontact	3 (1,6/1,2)
Title/degree, name and surname of the person in charge	Dr hab. Katarzyna Golan, prof. nadzw. UP
Unit offering the subject	Department of Entomology
Aim of the module	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.
Contents of the training module-a compact description of approx. 100 words	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	A. S.Xavier, R. R.Barbosa, C. G.Barbosa, M. M. de Carvalho Q. 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 Banaszak J. Wiśniewski H.1999. Podstawy ekologii. WSP Bydgoszcz Khosho 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 Pierce W. D. 2016. Sanitary Entomology PDF (https://booksinto.cf/articles/sanitary-entomology-pdf.html) Sandner H. 1976. Entomologia a ochrona środowiska. PWN Warszawa. Boczek J. 2001. Człowiek i owady. Fundacja Rozwój SGGW. Piotrowski F. 1999. Stawonogi – sprzymierzeńcy i wrogowie człowieka i zwierząt. Wyd. Naukowe PWN. Żółtowski Z. 1956. Entomologia sanitarna. Wydawnictwo MON, 3 tomy. Cockroaches-Unhygienic scavengers in human settlements http://www.who.int/water_sanitation_health/resources/vector288to301.pdf
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