

Subject name	Integrated Plant Protection	
Subject code	E.1.INTE.SC.ECTIE.O	
Department	Department of Plant Protection	
Faculty	Faculty of Biotechnology and Horticulture	
Subject supervisor/Lecturer	dr hab. inż. Maria Pobożniak dr hab. inż. Jacek Nawrocki	
General information	Teaching period	1 semester / winter or summer
	ECTS credit	7
	Lectures total	15 h
	Lab classes	30 h
Objective and general description	The main objective of the course is identification of the most important pests and diseases occurring in crop plants (vegetables - field crops and greenhouses, orchards, some agricultural). Introduction of vegetable and orchard programs integrated plant protection (IPM systems). Principles of using biological agents and chemical protection in IPM.	
Lectures 5 x 3 hours	<ol style="list-style-type: none"> 1. Integrated Pest Protection - definition, history, principles of the organization farm with integrated plant production. 2. Principles of forecasting and monitoring of pests and pathogens. 3. Protection methods recommended in IPM system (quarantine, agrotechnical, cultural and biological methods). 4. Pesticides and biopesticides in IPM systems. Technique for plant protection treatments. 5. Rules for the registration of pesticides 6. Beneficial organism limiting the number of pests. The importance of biodiversity of species of plants and animals in IPM. 7. Ecological plant protection. 8. The use of resistant and tolerant cultivars in integrated plant production. 9. The use of pheromone, sticky traps and odour traps in monitoring of pest in IPM 	
Lab classes 6 x 4 + 2 x 3	<ol style="list-style-type: none"> 1. Economic injury levels and economic threshold 2. Identification and methods of preventing and control of main pathogens occurring in vegetable crops. 3. Identification and preventing and control of main pests occurring in vegetable crops. 4. Identification and preventing and control of main pathogens occurring in orchard crops. 5. Identification and preventing and control of main pests occurring in orchard crops. 6. Identification preventing and control of main pests occurring in agricultural crops. 7. Field exercises in orchards and vegetable plantations 	
Literature	<ol style="list-style-type: none"> 1. Peshin, Rajinder; Dhawan, Ashok K. (Eds.). Integrated Pest Management. Volume 1. 2009 2. D.P. Abrol., U. Shankar. Integrated Pest Management: Principles and Practice. CABI, 2012 - Electronic books – 512 pp. 3. Agrios G. N.: Plant Pathology. Academic Press. San Diego, London, Boston, N. York, Sydney. Tokyo, Toronto 1997, ss. 635. 4. Snowdon A. L.: Post-Harvest Diseases and Disorders of Fruits and Vegetables. Vol. 1: General Introduction and Fruits. Wolfe Scientific Ltd. 	

	London 1990, ss. 302, and Vol. 2: Vegetables. Wolfe Scientific Ltd. London 1990, ss. 416. Learning Plant Pathology. The Plant Health Instructor. American Phytopathological Society, 2006. www.apsnet.org/education .
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