

Subject name	Plant Protection	
Subject code	R.9s6.PPR.NI.RROAY	
Department	Agricultural Environmental Protection	
Faculty	Agriculture and Economics	
Subject supervisor/Lecturer	Profesor Dariusz Ropek, Dr. Agnieszka Synowiec	
General information	semester	Winter or summer
	ECTS credits	7
	Lectures total	20 hrs
	Laboratories/ field classes	15/10 hrs
Objective and general description	<p>The main objective of this course is to provide up-to-date and relevant knowledge in plant protection. Lectures are focused on the description of main groups of plant pests, weeds and pathogens, methods of their determination, and methods of plant protection. In practicals, the students will work with weeds, pests and pathogens, determine them and learn to choose the optimal methods of their control.</p> <p><u>Lectures</u></p> <p>1-2. Introduction to plant protection, aim of the subject, basic terms, relation to other subjects.</p> <p>3. Plant pathogens: viruses, bacteria: symptoms, structure, transmission, vectors, disease cycle, detection, methods of plant protection.</p> <p>4-5. Plant pathogens: fungi: symptoms, structure, disease cycle, detection, methods of plant protection.</p> <p>6-7. Plant pests: nematodes, mites, slugs, mammals - characteristics, biology, economically important species.</p> <p>8-9. Plant pests: insects: characteristics, biology, economically important species.</p> <p>10-11. Monitoring of pests and diseases in plant protection. Chemical plant protection of pest and diseases - pesticides, composition, use, efficiency, legislation. Environmental impact of plant protection.</p> <p>12-13. Non-chemical plant protection of pests and diseases - good agricultural practice. Biological plant protection - principles, parasitoids, pathogens, conditions for use, efficiency.</p> <p>14-16. Positive and negative aspects of weed occurrence in agrocenoses</p> <p>17-18. Chemical weed control. Herbicides - their composition, use, efficiency, legislation. Impact of herbicides on environment.</p> <p>19-20. Non-chemical weed control. Cultural, mechanic and alternative ways to manage weeds in the crops.</p> <p>Classes</p> <p>1-2. Diseases and pests of cereals and grasses.</p> <p>3-4. Diseases and pests of potato and sugar beet.</p> <p>5-6. Diseases and pests of pea, bean, soya, alfalfa, clover and other forage crops.</p> <p>7-8. Diseases and pests of technical crops.</p> <p>9-10. Storage diseases and pests</p> <p>11-15 Weeds: their identification, biological and ecological</p>	

	<p>characteristics. Selection of herbicides to their control.</p> <p>Field trip: 1-5. Determination of pest and diseases in the field conditions. 6-10. Determination of weeds in the field conditions.</p>
Assessment method	<p>Evaluation of student presentations, written report from laboratory classes. (classes 1-20) Determination of pests, diseases and weeds (field trip 1-10) Lectures: Written exam.</p>
References	<p>Hajek, Ann E. Natural Enemies: An Introduction to Biological Control. Cambridge University Press,2004. Barker, G. Terrestrial Mulluscs as Crop Pests, CABI Publishing: 2002. Ware W.G. Complete guide to pest control. Thompson publications, 1996. Ware W.G. The Pesticide book. Thompson publications, 2000. Hance R. J., Holly K., British Crop Protection Council 1990 Weed control handbook: principles. Blackwell Scientific Publication</p>