

**DETERMINATION OF CREDITS COURSES
INTRODUCTION OF PLANT PROTECTION**

Course	CLO	CLO 1.1	Learning Methods	Study Materials	Study Hours		Sks/Credits
					T	P	
Introduction of Plant Protection	Able to describe plant loss and damage, the concept of pests, biotic abiotic diseases, basic concepts of eradication, control and protection of plants against environmentally friendly pests	Basic concepts of plant protection	Face to Face, Structure Assignment, Independent Study	1. Plant damage and yield losses due to pest attacks 2. Important role of plant protection	8	0	0,18
		The relationship between plants, the environment and plant pest organisms	Face to Face, Structure Assignment, Independent Study	1. The concept of the triangle of plant pest organisms 2. Development factors for plant pest organisms 3. The concept of outbreaks of plant pest organisms	14	0	0,31
	Able to explain and determine types of abiotic diseases, biotic diseases, pests and weeds in agriculture based on symptoms and signs of opt attacks from observations and collaborative discussions with supervisors, colleagues,	Abiotic causes of plant diseases	Face to Face, Structure Assignment, Independent Study	1. Definition of diseased plants 2. The concept of plant diseases caused by abiotic factors 3. Symptoms and signs of non-infectious diseases	8	0	0,18
		Biotic causes of plant diseases	Face to Face, Structure Assignment, Independent Study	1. The concept of plant diseases caused by biotic factors 2. Pathogenic microorganisms of infectious diseases 3. Symptoms and signs of infectious diseases	15	7	0,58
		Symptoms and signs of plant pest attacks	Face to Face, Structure Assignment, Independent Study, Practicum	1. The concept of plant pests 2. Classification of pests based on kingdom 3. Symptoms and signs of plant pest attacks	15	7	0,58
		Plant pest control technology	Face to Face, Structure Assignment, Independent Study, Practicum	1. Diagnose plant pest attacks 2. Types of pest control technology 3. Considerations for choosing pest control technology	8	7	0,42
	Students are able to determine control strategies for pests and diseases based on law	Plant disease control technology	Face to Face, Structure Assignment, Independent Study, Practicum	1. Diagnosis of non-infectious and infectious disease attacks 2. Types of disease control technology 3. Consideration of disease control technology selection	8	7	0,42

	Students are able to plan and implement control of pests and diseases in a cultural, biological, physical and chemical manner based on environmentally friendly and sustainable principles	Integrated plant health management planning	Face to Face, Discussion	1. Case study of integrated pest and plant disease control 2. Simple planning action plan for integrated pest and plant disease control	15	0	0,33
	Students are able to protect plants and solve pest problems by controlling pests and diseases in an integrated, environmentally friendly, sustainable manner	Integrated plant health management planning					
				Total Hours	91	28	3,00
	sks/credit Theory		(Total Hours for Theory × 1 sks)/(2.83 × 16)	SKS Theory			2,01
	sks/credit Practicum/field work		(Total Hours for Practicum × 1 sks)/(2.83 × 10)	SKS Practicum			0,99

Notes: T = Theory P = Practicum/Field Work

1 SKS/Credit = 170 minutes = 2,83 hours

1 Semester = 16 Face Times

The study time required for students to achieve CLO at each learning stage is determined by the lecturer/lecturer team based on their experience in teaching the course.

Total Course SKS/Credits = Theory + Practicum/field work