

PLANT PROTECTION

1	Course Title:	PLANT PROTECTION
2	Course Code:	GBUP114
3	Type of Course:	Compulsory
4	Level of Course:	Short Cycle
5	Year of Study:	1
6	Semester:	2
7	ECTS Credits Allocated:	3.00
8	Theoretical (hour/week):	1.00
9	Practice (hour/week):	2.00
10	Laboratory (hour/week):	0
11	Prerequisites:	-
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Doç.Dr. NABİ ALPER KUMRAL
15	Course Lecturers:	Doç. Dr. Himmet TEZCAN
16	Contact information of the Course Coordinator:	akumral@uludag.edu.tr Uludağ Üniversitesi Ziraat Fakültesi Bitki Koruma Bölümü 16059-Görükle/BURSA Tel. 0(224) 294 15 76
17	Website:	
18	Objective of the Course:	Aim of the course is to give general information about harmful pests and diseases on plants and explain the importance, general principles and applications of plant protection.
19	Contribution of the Course to Professional Development:	
20	Learning Outcomes:	
	1	Learning basic concepts about plant diseases and weeds
	2	Learning symptoms and taxonomy of plant diseases
	3	Distinguishing symptoms and morphologic differences of fungi, bacteria and virus on plant.
	4	Recognizing general plant diseases in agricultural production.
	5	Knowing control methods for plant diseases and weeds.
	6	Knowing morphologic characteristics and anatomy of arthropod pests, distinguishing general differences of insect orders.
	7	Knowing internal and external anatomic structures, physiologies, life and development of insects.
	8	Recognizing and distinguishing damage of arthropod pests on plants.
	9	Understanding economic aspects of pest control.
	10	Knowing cultural, physical, mechanical, biological, biotechnical, and chemical control methods for insects.
21	Course Content:	
	Course Content:	
Week	Theoretical	Practice

1	Definition of phytopathology, concept and phases of plant diseases	Slideshow		
2	Classification of plant disease symptoms	Slideshow, sampling and classification.		
3	Classification of plant diseases.	Field sampling and classification.		
4	Disease phases, general features and symptoms of viral and bacterial diseases.	Examining bacterial and viral disease symptoms.		
5	General features and classification of fungi.	Examining symptoms of fungal diseases.		
6	Disease pathology and epidemiology.	Slideshow.		
7	Control methods for diseases and weeds.	Description of important weeds and application samples.		
8	Repeating courses and midterm exam	Evaluation of exams.		
9	General features of insects, their benefits and hazards, structure of external body, morphology, structure of head, antenna and mouth types.	Slideshow, examination of museum samples.		
10	Sections of thorax, leg types, structure of wing, extensions of abdomen and their function.	Slideshow, examination of museum samples.		
11	Anatomy of insects, structure of internal body, muscle, digestion, circulatory, excretory and reproductive systems, function of sensory systems and their function.	Slideshow, examination of museum samples.		
12	Reproduction, development, metamorphosis in insects and insect ecology.	Slide and video show.		
13	Cultural, physical, mechanical, biological, biotechnical and chemical methods in pest	Field work, sample application methods.		
Activites		Number	Duration (hour)	Total Work Load (hour)
Theoretical		14	1.00	14.00
22	Textbooks, References and/or Other	Agrios, G.N. 2005. Plant Pathology		
Practicals/Labs		14	2.00	28.00
Self study and preperation		Daykal, N., 1995. Fitopatoloji. Oduay Universitesi Basimevi.(ISBN-975-7657-59-X). 368 s	1.00	14.00
Homeworks		1	10.00	10.00
Projects		Karsu, I. A., 1994. Genel Entomoloji, Kivanc Basimevi, Ankara, 424s.	0.00	0.00
Field Studies		0	0.00	0.00
23	Assesment			
Midterm exams		1	10.00	10.00
Others		0	0.00	0.00
Final Exams		1	15.00	15.00
Midterm Exam		1	30.00	30.00
Total Work Load				91.00
Total work load/ 30 hr		1	10.00	3.03
Home work project				
ECTS Credit of the Course				3.00
Total		3	100.00	
Contribution of Term (Year) Learning Activities to Success Grade		40.00		
Contribution of Final Exam to Success Grade		60.00		
Total		100.00		
Measurement and Evaluation Techniques Used in the Course				
24	ECTS / WORK LOAD TABLE			

25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
ÖK1	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0
ÖK2	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0
ÖK3	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0
ÖK4	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0
ÖK5	0	3	0	5	3	3	0	0	0	0	0	0	0	0	0	0
ÖK6	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0
ÖK7	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0
ÖK8	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0
ÖK9	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0
ÖK10	0	3	0	5	3	3	0	0	0	0	0	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contribution Level:	1 very low			2 low			3 Medium			4 High			5 Very High			