



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Plant Resistance to Insects							
Course Code		ZBK621		Course Level		Third Cycle (Doctorate Degree)			
ECTS Credit	7	Workload	181 (<i>Hours</i>)	Theory	3	Practice	0	Laboratory	0
Objectives of the Course		History and importance of insect resistance in crop plants, mechanism of plant resistance, and tolerance							
Course Content		Biochemical substances in host selection as attractants, repellents for oviposition and behavioural processes, plant resistance to insect vectors. Morphological basis of resistance. Ecological resistance. Role of genetic and environmental factors on stability and expression of resistance. Methods of investigating pest resistance in crop plants, and needs in host plant resistance studies. Use of resistant varieties in pest management.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Demonstration, Discussion					
Name of Lecturer(s)									

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

Recommended or Required Reading

1	Panda, N., Khush, G.S. (1995): Host plant resistance to insects. Cab International
2	Michael Smith, C. (1989): Plant resistance to insects.

Week	Weekly Detailed Course Contents	
1	Theoretical	Introduction
2	Theoretical	Crop plant and insect diversity
3	Theoretical	Secondary plant metabolites for pests resistance
4	Theoretical	pest-plant selection
5	Theoretical	Mechanism of resistance
6	Theoretical	Factors affecting expression of resistance
7	Theoretical	Screening for insect resistance
8	Intermediate Exam	Mid-Term Exam
9	Theoretical	Plant resistance and insect pest management
10	Theoretical	Genetics of resistance to insects
11	Theoretical	Breeding for resistance to insects
12	Theoretical	Transgenic crops for pests resistance
13	Theoretical	Resistance studies in the world and Turkey 1
14	Theoretical	Resistance studies in the world and Turkey 2
15	Theoretical	General review
16	Final Exam	Final Exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	2	2	56
Assignment	14	3	2	70
Midterm Examination	1	23	1	24
Final Examination	1	30	1	31
Total Workload (Hours)				181
[Total Workload (Hours) / 25*] = ECTS				7

*25 hour workload is accepted as 1 ECTS



Learning Outcomes

1	Having knowledge about insect-plant selection
2	Having knowledge about resistance mechanism
3	Having knowledge about genetics of resistance
4	Introduction of transgenic plants for resistance
5	

Programme Outcomes (*Plant Protection Doctorate*)

1	Students improve their knowledge and skill previously gained during first cycle and second cycle programs and become a specialist their own discipline
2	Students gain knowledge and experience for using new techniques and equipments in their own discipline.
3	Students gain ability to plan and conduct scientific projects in their own discipline by using current knowledge and techniques, and to collect and analyze data and make inference on the results .
4	Students gain ability to write scientific articles and prepare them for publications and to make oral or poster presentations in scientific meetings.
5	Students gain ability to review scientific articles and projects relevant to their own discipline.
6	Students gain experiences how to get effective position in national and international projects.
7	Students gain experience for participating in and organizing scientific meetings.

Contribution of Learning Outcomes to Programme Outcomes 1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High

	L1	L2	L3	L4	L5
P1	4	4	4	4	4
P2	5	5	5	5	5
P3	3	3	3	3	3
P4	4	4	4	4	4
P5	5	5	5	5	5
P6	5	5	5	5	5
P7	4	4	4	4	4

