AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title		Modern Diagnostic Techniques in Phytobacteriology							
Course Code		ZBK622		Couse Level		Third Cycle (Doctorate Degree)			
ECTS Credit	7	Workload	175 *(Hours)*	Theory	2	Practice	2	Laboratory	0
Objectives of the Course		Painting methods for the examination of fungi growth in plant tissues							
Course Content		Using and evaluating serological (double diffusion, immunofluorescence, ELISA) and molecular (PCR, BioPCR, RepPCR, RealtimePCR, qPCR) diagnostic methods that allow the identification and identification of plant pathogen prokaryotes from pure cultures, with or without indication							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Experiment, Demonstration, Discussion, Individual Study					
Name of Lecturer(s)									

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	10
Final Examination	1	60
Assignment	2	10
Term Assignment	1	20

Recommended or Required Reading	
1	Using and evaluating serological (double diffusion, immunofluorescence, ELISA) and molecular (PCR, BioPCR, RepPCR, RealtimePCR, qPCR) diagnostic methods that allow the identification and identification of plant pathogen prokaryotes from pure cultures, with or without indication
2	Schaad, N. W. J. B. Jones, W. Chun, Laboratory Guide for Identification of Plant Pathogenic Bacteria, APS Press, St. Paul, Minnesota, ISBN-0-89054-263-5
3	Maniatis, T. A., E. F. Fritsch, J. Sambrook, 1982. Molecular Cloning: A Laboratory Manual. Cold Spring Harbor Laboratory, NY.

Week	Weekly Detailed Course Contents	
1	Theoretical	a
2	Theoretical	a
3	Theoretical	a
4	Theoretical	a
5	Theoretical	a
6	Theoretical	a
7	Theoretical	a
8	Intermediate Exam	a
9	Theoretical	a
10	Theoretical	a
11	Theoretical	a
12	Theoretical	a
13	Theoretical	a
14	Theoretical	a
15	Final Exam	a

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	13	4	2	78
Assignment	2	10	2	24
Laboratory	13	2	2	52
Midterm Examination	1	9	1	10

Final Examination	1	10	1	11
			Total Workload (Hours)	175
			[Total Workload (Hours) / 25*] = **ECTS**	7
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	
2	
3	
4	
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	3	3	3	3	3
P3	4	4	4	4	4
P4	5	5	5	5	5
P5	5	5	5	5	5
P6	5	5	5	5	5
P7	4	4	4	4	4