AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Plant Disease Forecasting and Early Warning								
Course Code	ZBK508		Couse Level	Second Cycle (Master's Degree)					
ECTS Credit	8	Workload	200 *(Hours)*	Theory	2	Practice	2	Laboratory	0
Objectives of the Course	In this course, the introduction of forecasting and early warning systems used in the fight against plant diseases by examples, pathogen, host and environment relations by using the methods of early warning systems development; to teach pathogen, host and environmental conditions, and to collect data for early warning purposes.								
Course Content	This course provides information on the use and benefits of prediction and early warning systems in combating plant diseases, the principles of prediction and early warning, and the development of early warning systems. In addition, estimation and early warning systems to benefit from disease models and monitoring of pathogen, host and environmental conditions and early warning data collection and evaluation is explained. Finally, important prediction and early warning systems used in the fight against plant diseases are introduced in the world.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Demonstration, Project Based Study, Individual Study								
Name of Lecturer(s)	Prof. Ömer ERİNCİK								

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

Recommended or Required Reading	
1	Campbell C. L. And Madden L. V. 1990. İntroduction to Plant Disease Epidemiology. A Wiley- Interscience Publication. New York
2	Jones, D.G. 1998. The Epidemiology of Plant Diseases
3	Madden L. V. And Ellis M.A How to develop Plant Disease Forecasters
4	Francl, L. F. and Deborah, N. A. 1997. Exercise in plant Disease Epidemiology

Week	Weekly Detailed Course Contents	
1	Theoretical	Definition, history, purpose, benefits and importance of early warning in plant diseases and its importance in IPM.
2	Theoretical	Factors causing disease formation in plants (pathogen, host and environment). Forecasting and early warning of these factors
3	Theoretical	Pathogen and host tracking and data collection
4	Theoretical	Monitoring of environmental conditions and data collection, climate stations
5	Theoretical	Development of disease forecasting and early warning systems Development of disease models I
6	Theoretical	Development of disease models II
7	Intermediate Exam	Midterm Exam
8	Theoretical	Forecasting and early warning systems Phenological models
9	Theoretical	Forecasting and early warning systems based on pathogen conditions
10	Theoretical	Environmental warning and early warning systems I
11	Theoretical	Environmental warning and early warning systems II
12	Theoretical	Important forecasting and early warning systems used in the fight against plant diseases in our country
13	Theoretical	Important forecasting and early warning systems used in the fight against plant diseases in the world
14	Theoretical	Important forecasting and early warning systems used in the fight against plant diseases in the world
15	Theoretical	Technological developments in forecasting and early warning, early warning systems with computer, satellite and GSM

16	Final Exam	Final Exam

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	2	2	56
Lecture - Practice	14	2	2	56
Term Project	1	0	40	40
Midterm Examination	1	20	1	21
Final Examination	1	26	1	27
			Total Workload (Hours)	200
			[Total Workload (Hours) / 25*] = **ECTS**	8
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	
2	
3	
4	
5	

Programme Outcomes *(Plant Protection Master)*	
1	To develop knowledge and abilities that gained during undergraduate education
2	To gain ability to search and pursue current literature
3	To gain ability to plan and write projects that help solving problems in field of study.
4	To gain ability to conduct research, analyze data, evaluate research results scientifically and preapare reports and thesis writing.
5	Students will be able to learn and apply the laboratory test and analysis methods
6	To recognize occupational and ethical responsibility

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	5	4	5
P2	3	3	4	4	4
P3	4	4	5	3	4
P4	3	3	4	5	3
P5	3	3	4	5	3
P6	4	4	4	4	4