AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Seedborne Plant Pathogenic Fungi								
Course Code	ZBY520		Couse Level	Second Cycle (Master's Degree)					
ECTS Credit	8	Workload	206 *(Hours)*	Theory	2	Practice	2	Laboratory	0
Objectives of the Course	Objective of the course is to recognition of common fungal diseases of seeds, the mechanism of seed infection, identification of seedborne plant pathogenic fungi and control methods of seedborne diseases.								
Course Content	Identification of seedborne fungal diseases, General features of seedborne fungal pathogens, their symptoms in/on seeds and localition of seedborne fungi, The mechanism of seeds infection, The control methods and measures suggested for fungal pathogens in/on seeds								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Experiment, Discussion, Project Based Study, Individual Study								
Name of Lecturer(s)									

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

Recommended or Required Reading	
1	Watanabe, T., 2010. Pictorial Atlas of Soil and Seed Fungi: Morphologies of Cultured Fungi and Key to Species. Third Edition. CRC Press (Taylor & Francis Group), 404 p.
2	Erkan, S., 1998. Tohum Patolojisi, Gözlem Ofis, İzmir 275 s.

Week	Weekly Detailed Course Contents	
1	Theoretical & Practice	T: Structure of seeds A: Rules need to be considered in the laboratory, Presentation of laboratory instruments and equipment
2	Theoretical & Practice	The seedborne fungal pathogens in important cultivated plants and their distribution on the basis of plant species A:Microscope and use
3	Theoretical & Practice	The ways of seed infection and seed infection mechanism A: Sterilisation methods
4	Theoretical & Practice	Factors affecting seed infection A: Preparation of culture medium
5	Theoretical & Practice	Longevity of seed borne pathogens and affecting factors A: Preparation for laboratory tests
6	Theoretical & Practice	Epidemiology of seed borne pathogens A: Collection samples
7	Theoretical & Practice	Study of seedborne fungi A: Isolation of fungi from seed
8	Intermediate Exam	Midterm Exam
9	Theoretical & Practice	Principles of isolation methods A: Isolation of fungi from seed
10	Theoretical & Practice	Methods ort he identification of seedborne fungi A: Isolation of fungi from seed
11	Theoretical & Practice	Tohum kaynaklı fungusların tanılanmasında kullanılan yöntemler U: Tohum kaynaklı fungusların tanılanması
12	Theoretical & Practice	Preservation of cultures A: Identification of seedborne fungi
13	Theoretical & Practice	Control of seed borne fungi diseases; quarantine, seed sertification, physical, mechanical and biological control methods A: Pathogen inoculation techniques to seeds
14	Theoretical & Practice	Control of seed borne fungi diseases; quarantine, seed sertification, physical, mechanical and biological control methods A: Pathogenicity tests
15	Theoretical & Practice	Seed health tests A: Evaluation of pathogenicity tests
16	Final Exam	Final exam

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	7	2	126
Lecture - Practice	14	3	2	70
Midterm Examination	1	4	1	5

Final Examination	1	4	1	5
			Total Workload (Hours)	206
			[Total Workload (Hours) / 25*] = **ECTS**	8
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	Express the significance of seedborne phytopathogenic fungi for plants and community
2	Knowledge of the mechanisms of seedborne fungal diseases
3	Recognition of fungal diseases of seeds
4	Able to identification of seedborne fungi
5	Having knowledge about of prevention and control of seedborne fungi

Programme Outcomes *(Agricultural Biotechnology Master)*	
1	Students learn various techniques and evaluates resources about agricultural biotechnology
2	Make the necessary projects in agricultural biotechnology and to conduct a study of the basic level independently
3	Students learns how to conduct a scientific research and prepares themself for the scientists in the direction of their ideals.
4	Students may reveal new ideas in social and scientific issues and can benefit from the ideas and produce something new winning independent and teamwork skills.
5	Students can use its products for the benefit of humanity, they can produce technology and collaborate with industry

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