



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title	Applications of PCR in Mycology								
Course Code	MİK650		Course Level		Third Cycle (Doctorate Degree)				
ECTS Credit	4	Workload	100 (Hours)	Theory	2	Practice	2	Laboratory	0
Objectives of the Course	The objective of this course is to give information about molecular techniques in microbiology.								
Course Content	Purification and separation of nucleic acids, cutting and joining DNA, Electrophoresis, analysis of gene expression, Northern Blots, RNase protection assay, Real Time PCR, Reverse transcription PCR, In situ hybridization, Translational analysis, Western Blots, analysis of gene function, manipulating gene expression.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Experiment, Demonstration, Discussion, Case Study								
Name of Lecturer(s)	Prof. Serap SAVAŞAN								

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Assignment	4	20
Midterm Examination	1	20
Final Examination	1	60

Recommended or Required Reading

1	Temel mikrobiyoloji
2	Veterinary Mycology Laboratory Manual
3	Biyoteknoloji

Week Weekly Detailed Course Contents & Teaching Methods

Week	Weekly Detailed Course Contents & Teaching Methods	
1	Theoretical & Practice	PCR on mycology
2	Theoretical & Practice	PCR on mycology
3	Theoretical & Practice	Cloning gene by pcr
4	Theoretical & Practice	Cloning gene by pcr
5	Theoretical & Practice	Monitorize of Fungal gene expression
6	Theoretical & Practice	Monitorize of Fungal gene expression
7	Theoretical & Practice	Monitorization of Fungal gene expression
8	Theoretical & Practice	Discussion
9	Theoretical & Practice	Disclosure of PCR methods of species identification
10	Theoretical & Practice	Disclosure of PCR methods of species identification
11	Theoretical & Practice	Disclosure of PCR methods of species identification
12	Theoretical & Practice	Use of PCR to Fungal biotechnology
13	Theoretical & Practice	Use of PCR to Fungal biotechnology
14	Theoretical & Practice	Use of PCR to Fungal biotechnology

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Lecture - Practice	14	0	2	28
Assignment	4	3	2	20
Midterm Examination	1	10	2	12
Final Examination	1	10	2	12
Total Workload (Hours)				100
[Total Workload (Hours) / 25*] = ECTS				4

*25 hour workload is accepted as 1 ECTS



Learning Outcomes

1	Having information about PCR in Mycology
2	Use of PCR to Fungal biotechnology
3	3. To have knowledge about the preparation of mycotic samples for PCR
4	4. To have knowledge about the evaluation of PCR results from mycological point of view
5	5. Providing ability to use these informations

Programme Outcomes (Microbiology (Veterinary Medicine) Doctorate)

1	Department has the ability to identify and apply information about bacteriology, virology, mycology and has the ability to recognize diseases about veterinary medicine.
2	Department has the ability to take the advantage of technology and has the ability to diagnose, treat and prevent the diseases by using appropriate equipments.
3	Department has the ability to analyze the epidemiological compounds of an animal population and has the ability to get precautions.
4	Department has the ability to test or analyze the diseases and has the ability to evaluate the results.
5	Department has the ability to perform, produce and conclude projects for scientific researches.
6	Department has the ability to donate theoretical and practical knowledge about postgraduate students in the are of microbiology.
7	Graduate students has the ability to perform scientific researches.

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	5	5	5	4
P2	4	5	5	4	5
P3	4	5	4	4	5
P4	5	4	5	5	5
P5	4	5	5	5	5
P6	5	4	4	5	4
P7	4	5	5	4	4

