



**AYDIN ADNAN MENDERES UNIVERSITY  
SULTANHISAR VOCATIONAL SCHOOL  
FUNGICULTURE  
COURSE INFORMATION FORM**

Course Title	Micro in Mushroom Production Techniques								
Course Code	MAN222	Course Level		Short Cycle (Associate's Degree)					
ECTS Credit	2	Workload	50 (Hours)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	Have knowledge for clonal seedling production and commercial matters through the use of tissue culture techniques.								
Course Content	Having knowledge about introduction to plant tissue culture techniques applications, general laboratory method, the importance of the nutrient media and culture conditions, tissue culture techniques, the clonal propagation and commercial production and gene transfers.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Discussion, Individual Study, Problem Solving								
Name of Lecturer(s)									

#### Assessment Methods and Criteria

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

#### Recommended or Required Reading

1	Course notes of Lecturers
2	Internet

Week	Weekly Detailed Course Contents	
1	Theoretical	Introduction to tissue culture techniques, definitions and the application fields
2	Theoretical	Establishment of general laboratory layout
3	Theoretical	Preparation of the nutrient media, sterilization and culture conditions
4	Theoretical	Plant regeneration
5	Theoretical	Callus Culture
6	Theoretical	Production of haploid plant
7	Theoretical	Diploiditaion ve doubled plant production
8	Intermediate Exam	Mid-term-exam
9	Theoretical	Embryo, protoplast and anther culture
10	Theoretical	To compose fringed root culture by means of Agrebacterium
11	Theoretical	In vitro plant abnormalities
12	Theoretical	Clonal reproduction and commercial production
13	Theoretical	Clonal reproduction and commercial production
14	Theoretical	Clonal reproduction and commercial production
15	Theoretical	Gene transfer to plants

#### Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Assignment	2	3	1	8
Midterm Examination	1	6	1	7
Final Examination	1	6	1	7
Total Workload (Hours)				50
[Total Workload (Hours) / 25*] = ECTS				2

\*25 hour workload is accepted as 1 ECTS

#### Learning Outcomes

1	To learn basic concepts of tissue culture
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2	To learn clonal seedlings production method by tissue culture techniques
3	To gain the ability to prepare the nutrient medium
4	Having knowledge about the potential of tissue culture techniques in plant breeding.

#### **Programme Outcomes** (*Fungiculture*)

1	Having knowledge of morphology, anatomy, cytology, physiology and biochemical structures of mushroom
2	Having knowledge of soil and climate conditions for mushroom cultivation
3	Having knowledge of identification, classification and the use areas of mushroom species
4	Having knowledge of culture and production techniques of mushroom
5	Having knowledge of harvest and conservation of mushroom
6	Having ability to identify and to maintain important diseases and pests of mushroom species
7	Having ability and knowledge of marketing techniques of mushroom products, effectively.
8	Ability to project mushroom built.
9	Having knowledge of Laboratory techniques
10	Having knowledge of mushroom management

