



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Laboratory Techniques							
Course Code		TABİ205		Couse Level		Short Cycle (Associate's Degree)			
ECTS Credit	4	Workload	100 (<i>Hours</i>)	Theory	2	Practice	2	Laboratory	0
Objectives of the Course		Having knowledge of workrules in thelaboratory, theuse of laboratorymaterials, quick analysis techniquesandlaboratoryaccreditation, tolearn sensory, physical, chemicalandmicrobiologicalanalysis techniques							
Course Content		Definition andclassification of laboratory, qualification requirements forthelaboratory, intendeduse, the rulesneedto be considered in laboratorystudies, accidentsandoccupational safety in thelaboratory, materials, toolsandfunctions of these in laboratory, andworking methods, general methods of analysis, solutionsandpreparation of solutions, acid-baseconcepts, methods of plantanalysis, somebasicanalysis of foodstuffs, microbiologylaboratories, andthe general rules, andpreparation of growthmedium, heatreatment							
Work Placement		Students have to complete their internship and properties within the required thirty work days time. The required rules are describes at the Adnan Menderes University, Sultanhisar Vocational School, Student Internship Instructions.							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Experiment, Demonstration					
Name of Lecturer(s)									

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	70

Recommended or Required Reading

1	Lecturer and Other Related Notes
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Week	Weekly Detailed Course Contents	
1	Theoretical	Laboratory work rules and point to be considered hazardous chemicals, and, first aid in laboratory accidents
2	Theoretical	The structural and physical properties of the laboratory, maintenance, cleaning, supplies, instruments and equipment of general laboratory
3	Theoretical	Preparation of solution (Molar, Normal, % concentration)
4	Theoretical	Chemical analysis techniques
5	Theoretical	Chemical analysis techniques
6	Theoretical	Spectrophotometric methods, ELISA and other serological methods, instrumental analytical techniques
7	Theoretical	Introduction to microbiology laboratory
8	Intermediate Exam	Midterm examination
9	Theoretical	Sensory analysis
10	Theoretical	Physical analysis techniques
11	Theoretical	Physical analysis techniques
12	Theoretical	Microbiologic analysis techniques
13	Theoretical	Microbiologic Analysis techniques
14	Theoretical	Rapid microbiological analysis techniques
15	Theoretical	Laboratory Accreditation

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Lecture - Practice	14	0	2	28
Midterm Examination	1	21	1	22



Final Examination	1	21	1	22
Total Workload (Hours)				100
[Total Workload (Hours) / 25*] = ECTS				4
*25 hour workload is accepted as 1 ECTS				

Learning Outcomes

1	Recognizes and categorizes laboratories
2	Knows the rules to be considered in laboratory studies
3	Knowledgeable about laboratory security and accidents
4	Applies general analysis methods
5	Prepare the solution
6	Prapare growth medium
7	Applies heat treatment

Programme Outcomes (Plant Protection)

1	To be able to learn about systematics, morphological, biological, ecological and epidemiological information about diseases, pests and weeds that cause the loss of the crop at every stage of production,
2	To be able to become familiar with agricultural management control methods and their use in control of plant diseases, pests and weeds in cultivated agricultural crops,
3	To be able to diagnose and identify plant diseases, insect, mite or nematode pests or weeds that cause economical losses in stored crops and products,
4	To be able to use pesticides safely and effectively and informed about their hazardous non-target effects on the environment and human health.
5	To be able to learn plant protection products and their practice in organic agriculture,
6	To be able to evaluate the information obtained throughout the learning process with cause-effect relations, to be able to collect data and transfer the results to practice, and to predict where, when and why to use the information
7	To be able to comply with professional, cultural, social ethic rules in his / her field and to be entrepreneurial
8	To be able to have conscious of the universality of social rights, social justice, quality and cultural values, environment protection, occupational health and safety issues
9	To be able to use information and communication technologies together with the required computer software of his / her field
10	To be able to have the necessary background and qualifications to work in public and private agriculture sectors, to be able to conduct a study independently / as a team member and to be able to comply with the relevant legislation

Contribution of Learning Outcomes to Programme Outcomes 1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High

	L1	L2	L3	L4	L5	L6	L7
P1	2	2					1
P2	2	2		2		1	1
P3	2	2		2		2	1
P6			4		4	3	1
P7			2				
P10	3	3	4	3	4		3

