



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Plant Nutrition and Fertilization							
Course Code		TAP224		Course Level		Short Cycle (Associate's Degree)			
ECTS Credit	3	Workload	71 (Hours)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course		Recognition of thenecessarynutrientsforplantsandhavingknowledgeabout plantnutritionandfertilization, andtogaintheabilitytousefertilizers							
Course Content		Introduction, an importantplantnutrient, nutrientandwateruptake in plants, theeffects of nutrients on plantgrowth, classificationanduse of fertilizers							
Work Placement		N/A							
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	Gübreler ve Gübreleme Tekniği, Burhan Kaçar, Nobel Akademik Yayıncılık, 2011
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Week	Weekly Detailed Course Contents	
1	Theoretical	Introduction, plant nutrition elements needed
2	Theoretical	Uptaken utrien telements in plants
3	Theoretical	Uptake water in plants
4	Theoretical	Nitrogen, theeffects of nitrogen on plantgrowth, nitrogendeficiencyandexcess
5	Theoretical	Phosphorus, theeffects of phosphorus on plantgrowth, phosphorusdeficiencyandexcess
6	Theoretical	Potassium effects on plant growt hand development of potash, potassium deficiency and excess
7	Theoretical	Calcium, the metabolic functions of calcium, calcium deficiency and excess
8	Intermediate Exam	Midterm
9	Theoretical	Magnesium, metabolicfunctions, magnesium, magnesiumdeficiencyandexcess, sulfur, sulfurmetabolicfunctions, deficiencyandexcess of sulfur
10	Theoretical	Iron, ironmetabolicfunctions, irondeficiencyandexcess, zinc, zincmetabolicfunctions, deficiencyandexcess of zinc, boron, boronmetabolicfunctions, deficiencyandexcess of boron
11	Theoretical	Fertilizerproductionandconsumption, classification of fertilizers
12	Theoretical	Organic fertilizer
13	Theoretical	Chemicalfertilizers (nitrogenousfertilizers, phosphorusfertilizers, potassiumfertilizers)
14	Theoretical	Chemicalfertilizers (calciumfertilizers, magnesiumfertilizers, sulfurfertilizers)
15	Theoretical	Fertilizersincludingmicronutrients,
16	Final Exam	Final Exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Assignment	6	2	1	18
Reading	5	2	1	15
Individual Work	3	1	1	6
Midterm Examination	1	1	1	2
Final Examination	1	1	1	2
Total Workload (Hours)				71
[Total Workload (Hours) / 25*] = ECTS				3

*25 hour workload is accepted as 1 ECTS



Learning Outcomes

1	Knows important nutrient elements for plants
2	Knows how plantstakenutrient sand water
3	Knowseffects of nutrientelemnets on plantdevelopment
4	Classifies fertilizers
5	Applies fertilizer

Programme Outcomes (*Medical and Aromatic Plants*)

1	Understands the importance of medicinal and aromatic plants in the World and Turkey
2	Learn about the general characteristics of medicinal and aromatic plants. Learn the important issues in cultivation and can apply.
3	Learn about usage technologies about medicinal and aromatic plants and can apply.
4	Inform of producers of medicinal and aromatic plant species in offering, material supply, production process, marketing matter.
5	Know and follow the laws and regulations pertaining to the profession.
6	Learns morphological and anatomical structures of plants.
7	Learns to identify medicinal and aromatic plants.
8	To be able to behave sensitively towards environmental issues at national and global levels and to be able to interpret solution-oriented information; to be able to be an environmentally conscious and entrepreneurial individual
9	To be able to follow, evaluate and implement new developments and applications in the cultivation of medicinal and aromatic plants independently or as a team.

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

	L1	L2	L3	L4	L5
P2	5	5	5	5	5
P9	4		4		

