



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Plant Nutrition And Fertilization							
Course Code		FY210		Couese Level		Short Cycle (Associate's Degree)			
ECTS Credit	2	Workload	50 (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		Students must have to complete their internship within the required time and properties. The required rules are describes at the Adnan Menderes University, Sultanhisar Vocational School, Student Internship Instructions.							
Planned Learning Activities and Teaching Methods				Explanation (Presentation)					
Name of Lecturer(s)		Lec. Şebnem Nalan AKAROĞLU							

Assessment Methods and Criteria

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

Recommended or Required Reading

1	Course notes of Lecturers
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Week	Weekly Detailed Course Contents	
1	Theoretical	Introduction, plant nutrition elements needed
	Preparation Work	Lecture material
2	Theoretical	Uptaken utrien telements in plants
	Preparation Work	Lecture material
3	Theoretical	Uptake water in plants
	Preparation Work	Lecture material
4	Theoretical	Nitrogen, theeffects of nitrogen on plantgrowth, nitrogendeficiencyandexcess
	Preparation Work	Lecture material
5	Theoretical	Phosphorus, theeffects of phosphorus on plantgrowth, phosphorusdeficiencyandexcess
	Preparation Work	Lecture material
6	Theoretical	Potassium effects on plant growt hand development of potash, potassium deficiency and excess
	Preparation Work	Lecture material
7	Theoretical	Calcium, the metabolic functions of calcium, calcium deficiency and excess
	Preparation Work	Lecture material
8	Preparation Work	Lecture material
	Intermediate Exam	Midterm
9	Theoretical	Magnesium, metabolicfunctions, magnesium, magnesiumdeficiencyandexcess, sulfur, sulfurmetabolicfunctions, deficiencyandexcess of sulfur
	Preparation Work	Lecture material
10	Theoretical	Iron, ironmetabolicfunctions, irondeficiencyandexcess, zinc, zincmetabolicfunctions, deficiencyandexcess of zinc, boron, boronmetabolicfunctions, deficiencyandexcess of boron
	Preparation Work	Lecture material
11	Theoretical	Fertilizerproductionandconsumption, classification of fertilizers
12	Theoretical	Organicfertilizer
	Preparation Work	Lecture material
13	Theoretical	Chemicalfertilizers (nitrogenousfertilizers, phosphorusfertilizers, potassiumfertilizers)
	Preparation Work	Lecture material
14	Theoretical	Chemicalfertilizers (calciumfertilizers, magnesiumfertilizers, sulfurfertilizers)
	Preparation Work	Lecture material



15	Theoretical	Fertilizers including micronutrients,
	Preparation Work	Lecture material
16	Preparation Work	Lecture material
	Final Exam	Final Exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Midterm Examination	1	9	1	10
Final Examination	1	11	1	12
Total Workload (Hours)				50
[Total Workload (Hours) / 25*] = ECTS				2

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	Knows important nutrient elements for plants
2	Knows how plants take nutrients and water
3	Knows effects of nutrient elements on plant development
4	Classifies fertilizers
5	Applies fertilizer

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
P6	4	4	4	3	2
P7	3	3	3	3	2
P10	3	2	2	2	2

