



**AYDIN ADNAN MENDERES UNIVERSITY
SULTANHISAR VOCATIONAL SCHOOL
PLANT AND ANIMAL PRODUCTION
SEEDLING PRODUCTION
COURSE INFORMATION FORM**

Course Title	Plant Nutrition And Fertilization								
Course Code	FY210			Course Level		Short Cycle (Associate's Degree)			
ECTS Credit	2	Workload	50 (Hours)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	Recognition of the necessary nutrients for plants and having knowledge about plant nutrition and fertilization, and to gain the ability to use fertilizers								
Course Content	Introduction, an important plant nutrient, nutrient and water uptake in plants, the effects of nutrients on plant growth, classification and use 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	60

Recommended or Required Reading	
1	Course notes of Lecturers

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, the effects of nitrogen on plant growth, nitrogen deficiency and excess
	Preparation Work	Lecture material
5	Theoretical	Phosphorus, the effects of phosphorus on plant growth, phosphorus deficiency and excess
	Preparation Work	Lecture material
6	Theoretical	Potassium effects on plant growth and 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, metabolic functions, magnesium, magnesium deficiency and excess, sulfur, sulfur metabolic functions, deficiency and excess of sulfur
	Preparation Work	Lecture material
10	Theoretical	Iron, iron metabolic functions, iron deficiency and excess, zinc, zinc metabolic functions, deficiency and excess of zinc, boron, boron metabolic functions, deficiency and excess of boron
	Preparation Work	Lecture material
11	Theoretical	Fertilizer production and consumption, classification of fertilizers
12	Theoretical	Organic fertilizer
	Preparation Work	Lecture material
13	Theoretical	Chemical fertilizers (nitrogenous fertilizers, phosphorus fertilizers, potassium fertilizers)
	Preparation Work	Lecture material
14	Theoretical	Chemical fertilizers (calcium fertilizers, magnesium fertilizers, sulfur fertilizers)
	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 (Seedling Production)

1	Having knowledge of physiology and morphology characteristics, growth, development and biochemical events occurred in fruits, vegetables and ornamental plants
2	Having knowledge of soil, climate and irrigation conditions grown fruits, vegetables and ornamental plants
3	Having knowledge of identification, classification and the use areas of fruits, vegetables and ornamental plants
4	Having practical and theoretical knowledge of production techniques of fruits, vegetables and ornamental plants
5	Having ability to identify and to maintain diseases and pests of fruits, vegetables and ornamental plants
6	Having knowledge of marketing techniques, standards, contributions to the economy of fruits, vegetables and ornamental plants, legal issues
7	Having knowledge of facilities and builds grown fruits, vegetables and ornamental plants, and tools and materials used.
8	Having ability to use effective own language and having knowledge of language in order to communicate own colleagues and own customers,
9	Having knowledge of Atatürk Principle and Revolutions and, ability to assimilate Atatürk Principle and Revolutions
10	Having an enough foreign language to able to follow new development in relation with nursery production

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	4	4	4	4	4

