



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Plant Nutrition and Fertilization							
Course Code		ZYD124		Course Level		Short Cycle (Associate's Degree)			
ECTS Credit	5	Workload	126 (<i>Hours</i>)	Theory	2	Practice	2	Laboratory	0
Objectives of the Course		This course aims to students, to understand the importance of teaching herbal plant nutrition and fertilization, plant nutrients, information related to the recognition of fertilizer and manure is to see in practice.							
Course Content		Presentation of the required elements in plant nutrition, the importance of each plant nutrients, signs of deficiency and excess, chemical fertilizers, organic fertilizers, fertilizing methods							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Demonstration, Case Study, Individual Study					
Name of Lecturer(s)									

Assessment Methods and Criteria

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

Recommended or Required Reading

1	Kacar, B., Katkat, V., 2006. Bitki besleme. Uludağ Üniv. Yayın No: (Nobel) 849.
2	Kacar, B., Katkat, V., 1999. Gübreler ve gübreleme tekniği. Uludağ Üniv. Yayın No: 144.

Week	Weekly Detailed Course Contents	
1	Theoretical	Introduction of the course: Content, importance, rules and requirements.
	Practice	Introduction of the course: Content, importance, rules and requirements.
2	Theoretical	needed elements in plant nutrition.
	Practice	Fertilization planning application
3	Theoretical	Nitrogen: Importance, excess and deficiency symptoms, introduction and information regarding the use of nitrogenous fertilizers
	Practice	preparation of applications in the field plots.
4	Theoretical	Phosphorus: Importance, excess and deficiency symptoms, information on the introduction and use of phosphorus fertilizer.
	Practice	cultivation of ending the parcel, fertilizer application
5	Theoretical	Potassium: Importance, excess and deficiency symptoms, potassium information about the promotion and use of fertilizer
	Practice	chemical fertilizers visually recognize
6	Theoretical	Calcium: Importance, excess and deficiency symptoms, introduction of calcium and information related to the use of fertilizers
	Practice	Some green manure crops to observe the terrain.
7	Theoretical	Magnesium: Importance, excess and deficiency symptoms, magnesium information about the promotion and use of fertilizer
	Practice	nodule formation observed in leguminous plants
8	Intermediate Exam	Midterm exam
9	Theoretical	Sulfur: Importance, excess and deficiency symptoms, information on the introduction and use of sulfur fertilizer
	Practice	Application maintenance and observation plots
10	Theoretical	Organic fertilizers: the introduction of animal manure, the importance of information on the use.
	Practice	Application maintenance and observation plots
11	Theoretical	Organic fertilizers: the introduction of green manure, the importance of information on the use.
	Practice	Application maintenance and observation plots
12	Theoretical	Fertilization methods.
	Practice	Application parcels harvest.
13	Theoretical	Foliar fertilization.



13	Practice	Parcel preparing monitoring reports.
14	Theoretical	Micronutrients: Importance, excess and deficiency problems, fertilizers.
	Practice	Micronutrients: Importance, excess and deficiency problems, fertilizers.
15	Theoretical	Fertilization - environment interactions in human health.
	Practice	Fertilization - environment interactions in human health.
16	Final Exam	Final exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	1	2	42
Lecture - Practice	14	1	2	42
Land Work	5	1	3	20
Reading	4	0	3	12
Midterm Examination	1	3	1	4
Final Examination	1	5	1	6
Total Workload (Hours)				126
[Total Workload (Hours) / 25*] = ECTS				5
*25 hour workload is accepted as 1 ECTS				

Learning Outcomes

1	Vegetative growth that may arise from the lack of nutrients, yield and quality problems are diagnosed visually
2	Recognizes organic and inorganic fertilizers and implements
3	Notice the fertilizer-soil interaction

Programme Outcomes (Olive Cultivation and Olive Processing Technology)

1	To be able to identify olive, soil and water and to having knowledge these
2	To be able to comprehend knowledge botany and fruit growing
3	To be able to comprehend table olive technology and to apply
4	To be able to comprehend knowledge basic biochemistry and olive oil chemistry and to have olive oil with modern and traditional systems, to have knowledge olive oil refinery, basic process and to have apply olive oil extraction
5	To be able to preserve olive and olive products in appropriate condition
6	To be able to comprehend growing olive plant with necessary agricultural methods and to have general maintenance of olive tree
7	To be able to evaluate olive by-products
8	To be able to comprehend knowledge about vegetable genetic
9	To be able to comprehend knowledge occupational safety and have apply first aid
10	To be able to apply necessary laboratory analysis in olive and olive products production
11	To be able to apply hygiene and sanitation rules in factory
12	To be able to comprehend knowledge of professional ethics and responsibility
13	To be able to comprehend knowledge marketing of olive products and to have olive management
14	To be able to communicate verbally and literally
15	To be able to comprehend planning olive growing and production area
16	To be able to comprehend knowledge vegetable ecology and protection of environment

