AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Soılless Agrıculture								
Course Code	ORT226		Couse Level		Short Cycle (Associate's Degree)				
ECTS Credit	3	Workload	74 *(Hours)*	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	Applied to soilless culture types and all cultural practices are taught theoretically and practically.								
Course Content	Description of soilless culture. Reasons of passing to soilless culture. Reasons of soilless culture using in greenhouses. History of soilless culture. Advantages and disadvantages of soilless culture. Nutrient solutions, water, macro nutrient elements, and chemical resources in soilless culture. Symptoms of deficiency and excessive on macro nutrient elements. Micro nutrient elements. Chemical resources. Symptoms of deficiency and excessive on micro nutrient elements. Problems in preparing of nutrient solutions. Desirable characteristics of nutrient solutions (pH, total salt consantration, temperature, aeratin). Feeding types of nutrient solutions to plants (static, batch flow, continue flow, spraying, dripping). Nutrient solution tanks. Control of diseases and harmfulness. Midterm. Types of soilless culture. Passing cultures. What is solid medium? Desirable characteristics. Organic and inorganic media. Types of solid culture (bed culture, por culture). Types of solid culture (sausage culture), water culture (static culture, flowing water culture). Water cultures (hyponica, aeroponic).								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Demonstration, Discussion, Individual Study								
Name of Lecturer(s)	Ins. Nuri KİLİMCİ								

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	70

Recommended or Required Reading	
1	Gül, A 2008. soilless agriculture, Hasat Publishing, İZMİR.
2	Sevgican, A. 2002. Greenhouse Vegetables (soilless agriculture), Ege University. Faculty of Agriculture Publications:528,İzmir

Week	Weekly Detailed Course Contents	
1	Theoretical	Description of soilless culture. Reasons of passing to soilless culture. Reasons of soilless culture using in greenhouses.
2	Theoretical	History of soilless culture. Advantages and disadvantages of soilless culture.
3	Theoretical	Nutrient solutions, water, macro nutrient elements, and chemical resources in soilless culture.
4	Theoretical	Symptoms of deficiency and excessive on macro nutrient elements. Micro nutrient elements. Chemical resources.
5	Theoretical	Symptoms of deficiency and excessive on micro nutrient elements. Problems in preparing of nutrient solutions.
6	Theoretical	Desirable characteristics of nutrient solutions (pH, total salt consantration, temperature, aeratin).
7	Theoretical	Feeding types of nutrient solutions to plants (static, batch flow, continue flow, spraying, dripping).
8	Theoretical	Midterm exam
9	Theoretical	Nutrient solution tanks. Control of diseases and harmfulness.
10	Theoretical	Types of soilless culture. Passing cultures.
11	Theoretical	What is solid medium? Desirable characteristics. Organic and inorganic media.
12	Theoretical	Types of solid culture (bed culture, por culture).
13	Theoretical	Types of solid culture (sausage culture), water culture (static culture, flowing water culture).
14	Theoretical	Water cultures (hyponica, aeroponic)
15	Theoretical	An overview

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	2	2	56
Midterm Examination	1	8	1	9

Final Examination	1	8	1	9
			Total Workload (Hours)	74
			[Total Workload (Hours) / 25*] = **ECTS**	3
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	Knows the differences between soil and soilless cultivation
2	The development of soilless culture, soilless culture learn the advantages and disadvantages.
3	Knows the properties of growing environments used in soilless culture
4	Knows the plant nutrition elements and methods used in soilless cultivation
5	Builds the relationship between the breeding environment and nutrition and produces a quality, economic and environmentally friendly production

Programme Outcomes *(Organic Agriculture)*	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	

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

	L1	L2	L3	L4	L5
P7	4	4	4	4	4
P8	4	4	4	4	4
P9	4	4	4	4	4
P10	4	4	4	4	4
P11	5	5	5	5	5