AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Plant Physiology								
Course Code	BYL105		Couse Level	Short Cycle (Associate's Degree)					
ECTS Credit	3	Workload	75 *(Hours)*	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	Teaching basic concepts and events on plant metabolism								
Course Content	Subdivisons of plant physiology. Chemical composition of plant cells, water metabolism in plants. Water, uptake, loss and transportation, mineral nutrition, dissolved substance transportation, photosynthesis and chemosynthesis, transportation of organic substances in plants, respiration and fermentation, lipid metabolism, assimilation of mineral nutrients and plant hormones								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation)								
Name of Lecturer(s)									

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

Recommended or Required Reading	
1	. Taiz, L and Zeiger, E. 2007 Plant Physiology. Palme Press, Ankara.
2	Kacar, B., Katkat, V., Ozturk, S. 2002. Bitki Fizyolojisi. Nobel Yayınevi, Ankara

Week	Weekly Detailed Course Contents	
1	Theoretical	Introduction to Plant Physiology, Chemical Composition of Plant Cells
2	Theoretical	Structure and properties of water
3	Theoretical	Water uptake and transport in plants
4	Theoretical	Water loss events in plants; transpiration, glutation and exudation
5	Theoretical	Mineral nutrition in plants; soil, roots and microorganisms
6	Theoretical	Dissolved matter transport
7	Theoretical	Photosynthesis; Light reactions
8	Intermediate Exam	Mid term exam
9	Theoretical	Fotosentez; Karbondioksit fiksasyon reaksiyonları
10	Theoretical	Phloem transporation
11	Theoretical	Respiration (Glycolysis, Citric acid cycle, Electron Transport System and ATP synthesisi)
12	Theoretical	Oxidative Pentose Phosphate Metabolic Pathway, Photorspiration, Fermantation
13	Theoretical	Lipid metabolism
14	Theoretical	Assilimation of Mineral Nutrient
15	Theoretical	Plant Growth Regulators
16	Final Exam	FINAL EXAM

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Assignment	14	0	2	28
Individual Work	9	0	1	9
Midterm Examination	1	4	1	5
Final Examination	1	4	1	5
			Total Workload (Hours)	75
			[Total Workload (Hours) / 25*] = **ECTS**	3
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	Have knowledge about the sub-branches of plant physiology and chemical composition of plants. Understands the importance of water for life by learning the structure and properties of water. Understands water absorption, transport and loss of plants.
2	Comprehend plant-mineral nutrient relationship and its requirements. Understands the basic relationships between soil, roots and microorganisms. Comprehends the transport of dissolved substance in plants at cell, tissue, organ level
3	Comprehends the phases of the light reactions of photosynthesis. Photosynthesis; Comprehends the mechanisms of carbon dioxide fixation reactions and carbon dioxide deposition. Understands and interprets how the mechanism of photosynthesis is affected by environmental
4	Handling organic substance transport and transportation models
5	Understand the basic processes of respiration and the factors affecting these processes. Oxidative Pentose Phosphate Metabolic Path, fermentation events can grasp. Learn about lipid metabolism.
6	Understand the nitrogen cycle and biological nitrogen fixation, mineral nutrient extraction and plant growth regulators issues.

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

	L1	L2	L4	L5	L6
P4			2		
P5	1				
P6	1				
P8		2			
P9				3	2
P10	2				