AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	The Physiology of Plant Growth and Development								
Course Code	BİO640		Couse Level	Third Cycle (Doctorate Degree)					
ECTS Credit	7	Workload	174 *(Hours)*	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	Teaching plant growth and developmental physiology								
Course Content	Concepts of growing, differentiation and development in plants. The ways of growing and development in plants and regulative mechanisms. The factors effecting growth and development in plants								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Discussion								
Name of Lecturer(s)									

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

Recommended or Required Reading	
1	plant physiology Taiz and Zaiger
2	plant growth regulators .narçın palavan ünsal
3	lecture notes

Week	Weekly Detailed Course Contents	
1	Theoretical	The concept of growth, differentiation, morphogenesis and development
2	Theoretical	Cell wall structure, biogenesis and expansion models
	Preparation Work	article evaluation
3	Theoretical	Embryogenesis
	Preparation Work	article evaluation
4	Theoretical	Meristems on plant development
	Preparation Work	article evaluation
5	Theoretical	Differentiation and organ development
	Preparation Work	article evaluation
6	Theoretical	The initiation and regulation of development paths
	Preparation Work	article evaluation
7	Theoretical	Senescense and programmed cell death
	Preparation Work	article evaluation
8	Theoretical	Phytochrome and plant growth control
	Preparation Work	article evaluation
9	Theoretical	Responses to blue light
	Preparation Work	article evaluation
10	Theoretical	plant growth regulators
	Preparation Work	article evaluation
11	Theoretical	plant growth regulators
	Preparation Work	article evaluation
12	Intermediate Exam	midterm
13	Theoretical	Control of flowering
	Preparation Work	article evaluation
14	Theoretical	Fruit and tuber formation
	Preparation Work	article evaluation
15	Theoretical	Physiology of plant movement
	Preparation Work	article evaluation

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	2	2	56
Assignment	10	2	1	30
Reading	14	0	3	42
Quiz	4	0	2	8
Midterm Examination	1	16	2	18
Final Examination	1	18	2	20
			Total Workload (Hours)	174
			[Total Workload (Hours) / 25*] = **ECTS**	7
25 hour workload is accepted as 1 ECTS				

Learning Outcomes	
1	Learns plants growth and developmental physiology
2	Gains ability to comments on plant life by using knowledge on plant growth and development, proceeds new researches
3	Investigates and comments previous studies on plant growth and development
4	Uses knowledge on factors effecting growth and development of plants to solve problems about plant biology.
5	Gains ability to discuss and preparation of presentation via homeworks and oral presentations given during the course

Programme Outcomes *(Biology Doctorate)*	
1	To have enough scientific background knowledge towards a specific study and research area
2	To have an ability to identify, evaluate and develop a solution for a problem on biological aspects
3	To be able to evaluate scientific observations and results of experiments using statistical analysis methods
4	To have basic skills in areas related to field of biological studies
5	To have the ability to develop cooperation with different disciplines with the high level of social communication required for studies
6	To have knowledge of technology and use of methods and means used in biological researches
7	To have an ethical understanding which will be a guide for their investigations and publications
8	For PhD; to have European Language Portfolio C1 general level language skill
9	To be able to present and discuss own research results in accordance with scientific discipline using technological tools in scientific research environments
10	To be able to detect and evaluate economic and social impacts of an own original research results
11	To be equipped with ability of carrying out independent study in biological field
12	To be able to publish at least one an international/national peer reviewed scientific paper and/or produce or interpret an original work related to biology in order to expand the frontiers of knowledge
13	To be able to develop new approaches or adaptations to be used in solving scientific and biological problems
14	To be able to develop new understanding and approaches in order to explain a new phenomenon or a biological event under investigation
15	To have abilities and experience to create new search area through inspiration gained from subject searched

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

	L1	L2	L3	L4	L5
P1	5				
P2				5	
P9					5
P11		5			
P14			5		