AYDIN ADNAN MENDERES UNIVERSITY
GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES
FIELD CROPS
FIELD CROPS
FIELD CROPS MASTER
COURSE INFORMATION FORM

Course Title	Plant Growth Regulators								
Course Code	BİO546		Couse Level	Second Cycle (Master's Degree)					
ECTS Credit	4	Workload	100 *(Hours)*	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	Teaching concept of phytohormone, classification of phytohormones and their metabolizm, transporting phytohormones and their general effects								
Course Content	concept of phytohormone, classification of phytohormones and their metabolism, transporting phytohormones and their general effects								
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 plant growth regulators. Similarities and differences with animal hormones. Effect of plant growth regulators style
2	Theoretical	Chemical structure and biosynthesis of plant growth regulators: I. Auxins
	Preparation Work	article evaluation
3	Theoretical	Chemical structure and biosynthesis of plant growth regulators: II. Gibberellins
	Preparation Work	article evaluation
4	Theoretical	Chemical structure and biosynthesis of plant growth regulators: III. cytokinins
	Preparation Work	article evaluation
5	Theoretical	Chemical structure and biosynthesis of plant growth regulators: IV. Absisic acid
	Preparation Work	article evaluation
6	Theoretical	Chemical structure and biosynthesis of plant growth regulators: V.Ethylene
	Preparation Work	article evaluation
7	Theoretical	Chemical structure and biosynthesis of plant growth regulators: VI. Jasmonic acid
	Preparation Work	article evaluation
8	Theoretical	Chemical structure and biosynthesis of plant growth regulators: VII. Salicylates
	Preparation Work	article evaluation
9	Theoretical	Chemical structure and biosynthesis of plant growth regulators: VIII. Polyamines
	Preparation Work	article evaluation
10	Theoretical	Chemical structure and biosynthesis of plant growth regulators: IX. Brassinosteroids
	Preparation Work	article evaluation
11	Theoretical	Effects of plant growth regulators on development of root, stem and leaf
	Preparation Work	article evaluation
12	Intermediate Exam	midterm
13	Theoretical	Effects of plant growth regulators on apical dominancy and water balance
	Preparation Work	article evaluation
14	Theoretical	Effects of plant growth regulators on tuber formation, flowering and fruit development
	Preparation Work	article evaluation

15	Theoretical	Effects of plant growth regulators on seed development, abscision, senescense and dormancy
	Preparation Work	article evaluation

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	2	2	56
Assignment	5	2	0	10
Reading	4	0	2	8
Midterm Examination	1	10	2	12
Final Examination	1	12	2	14
			Total Workload (Hours)	100
			[Total Workload (Hours) / 25*] = **ECTS**	4
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	To be able to comprehend structure and features of phytohormones and their roles in plant metabolism
2	To be able to investigate and comment previous studies on phytohormones
3	To be able to use knowledge on effect mechanism of phytohormones to solve problems regarding plant biology
4	To be able to comment on plant life and design new researches
5	To be able to discuss and prepare presentation via homeworks and oral presentations given during the course.

Programme Outcomes *(Field Crops Master)*	
1	To be able to improve and deepen the level of expertise in field crops on the basis of the departments licenses qualifications.
2	To be able to recognize the subjects related to field crops, to be able to solve these and make interpretation.
3	To be able to have the skills of acting independently, to have power to decide and to create.
4	To be able to work in teams between departments
5	To be able to give briefing about latest information of Field Crops in written, oral and visual ways.
6	To be able to take responsibility for developing the new approaches and to formulate a solution facing unforeseen complex situations of applications,
7	To be able to defend the original opinions in both Turkish and in foreign languages by using these languages and communicating effectively.
8	To be able to contribute to science by producing knowledge for the aim of improving quality, efficiency and sustainability
9	To be able to apply breeding methods in order to improve new varieties for Field Crops.
10	To be able to maintain and select the appropriate statistical methods within the framework of the study, evaluation of scientific ethics; to convert the results into a report/dissertation and to offer them by producing scientific publications.

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	4	3	4	3	4
P2	4	3	4	3	4
P3	4	3	4	3	4
P4	4	3	4	3	4
P5	4	3	4	3	4
P6	4	3	4	3	4
P7	4	3	4	3	4
P8	4	3	4	3	4
P9	4	3	4	3	4
P10	4	3	4	3	4