

UNIVERSITE_ADI_EN

BİY 517 BİTKİLERDE STRES FİZYOLOJİSİ VE TOLERANSI					
Semester	Course Code	Course Name	L+P	Credit	ECTS
2	BİY 517	BİTKİLERDE STRES FİZYOLOJİSİ VE TOLERANSI	3	3	8

Language of Instruction	: Turkish
Course Level	: Yüksek Lisans
Department / Program	: -
Course Type	: Seçmeli
Goals	: The aim of this course is to give the information related to tolerance and physiological and biochemical responses to various stress factors of plants
Content	: Introduction of stress physiology and stress tolerance, High temperature stress, Chilling stress, Freezing stress, Salt stress, Water stress, Photooxid
Prerequisites	:
Course Coordinator	: Doç.Dr. AYSEL SIVACI
Instructors	:
Assistants	:

Recommended Sources

Textbook	: 1-Taiz,L., Zeiger,E.,. Plant Physiology. The Benjamin/Cummins. Publishing Company. Inc. California, (1991).
Resources	: 2-Madhava Rao., K.V., Raghavendra R.S., Janardhan Reddy K., Physiology and Molecular Biology of Stress Tolerance in Plants. Springer Publishing,
Documents	: 3-Salisbury, F.B., Ross, C.W., Plant Physiology. California. (1991).
Assignments	: 4-Kocaçalışkan İ., Bitki fizyolojisi. Nobel yayın dağıtım. (2008).
Exams	: 5-Levitt,J., Responses of plants to environmental stress. Academic Press, London (1972).

Course Category

Mathematics and Basic Sciences	:
Engineering	:
Engineering Design	:
Social Sciences	:
Education	:
Science	:
Health	:
Field	:

Assessment			ECTS Allocated Based on Student Workload			
In-Term Studies	Quantity	Percentage %	Activities	Quantity	Duration	Total Work Load
Mid-terms	1	40	Course Duration	14	3	42
Quizzes			Hours for off-the-classroom st	14	6	84
Assignment			Assignments	12	4	48
Attendance			Presentation	12	5	60
Practice			Mid-terms	1	2	2
Total	1	40	Projects	1	2	2
Contribution of In-Term			Final examination	1	2	2
Contribution of Final	1	60	Total Work Load			240
Total	1	60	ECTS Credit of the Course			8

Course Content

Week	Topics	Study Materials	Materials
1	Introduction of stress physiology and stress tolerance		
2	High temperature stress		
3	Chilling stress		
4	Freezing stress		
5	Salt stress		
6	Water stress		
7	Photooxidative stress		
8	Mid-term exam		
9	Nutrient stress		
10	Heavy metal stress		
11	Drought stress		
12	Ultraviolet radiation stress		
13	Air pollution stress		
14	Metabolic engineering for stress tolerance		

Program Learning Outcomes

No	Learning Outcome
C01	Physiological and biochemical responses to against stress factors of plants will be able to explain.
C02	Knowledge about physiology and molecular biology of stress tolerance will be able to comment on this issue.
C03	Adverse environmental conditions, won the adaptations of plants able to learn.
C04	Able to understand the effects of in tolerance stress of hormones plant.

Course Learning Outcomes

No	Learning Outcomes
P01	Construct hypothesis and designing and conducting experiment with adequate compositions to analyze the hypothesis.
P02	Ability to utilize biology laboratory glassware and devices in place (light microscopy, electrophoresis mechanisms, centrifuge, spectrophotometer, etc.), Adapt the laboratory safety and compliance
P03	Ability to read, understand and criticize scientific publications.
P04	Ability to offer oral and written reports according to standard scientific format.
P05	Ability to explain the molecular, cellular and structure-function relationships at all organismal levels.
P06	Explanation of general cellular processes of eukaryotes and prokaryotes.
P07	Ability to explain the flow of genetic information, the heredity theory and the relationship between evolution theory and genetics.
P08	Ability to assess the principles of evolutionary biology, identify the organisms and reveal their taxonomic relationships.
P09	Ability to define the relationships between organisms and their ecological environment and understanding the importance of biology for sustainable environment.

Course Contribution To Program

Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant

	P01	P02	P03	P04	P05	P06	P07	P08	P09
All	5	1	5	5	4	1	1	1	5
C1	5	1	5	5	4	1	1	1	5
C2	5	1	5	5	4	1	1	1	5
C3	5	1	5	5	4	1	1	1	5
C4	5	1	5	5	4	1	1	1	5