

# PLANT BIOCHEMISTRY

1	Course Title:	PLANT BIOCHEMISTRY
2	Course Code:	BAH2103
3	Type of Course:	Compulsory
4	Level of Course:	First Cycle
5	Year of Study:	2
6	Semester:	3
7	ECTS Credits Allocated:	3.00
8	Theoretical (hour/week):	2.00
9	Practice (hour/week):	0.00
10	Laboratory (hour/week):	0
11	Prerequisites:	none
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Prof. Dr. AHMET İPEK
15	Course Lecturers:	Prof.Dr. Meryem İpek Doç.Dr. Asuman Cansev
16	Contact information of the Course Coordinator:	maipek@uludag.edu.tr 224-2941484 Bursa Uludağ Üniversitesi Ziraat Fakültesi Bahçe Bitkileri Bölümü Nilüfer/Bursa
17	Website:	
18	Objective of the Course:	The purpose of this course is to give students basic plant biochemistry and metabolism. In the context of this course, description of biochemistry, structure of plant cell and its importance in biochemistry, and metabolism of photosynthesis, respiration, synthesis of amino acids, enzyme, carbohydrate, lipids and protein are discussed.
19	Contribution of the Course to Professional Development:	Learn the chemical basis and biochemical formation processes of metabolic events in plants.
20	Learning Outcomes:	
	1	Learn the topics in Plant biochemistry
	2	Recognize plant cell structure and its organelles.
	3	Learn amino acids, genetic codes and protein structure
	4	Learn protein metabolism in plants
	5	Learn plant enzymes and their metabolisms
	6	Learn carbohydrates and their metabolism in plants
	7	Learn lipids and their metabolism in plants
	8	Learn photosynthesis and respiration in plants
	9	Learn nitrogen metabolism and fixation in plants
	10	Learn secondary metabolites in plants
21	Course Content:	
	<b>Course Content:</b>	
Week	Theoretical	Practice
1	Introduction to biochemistry	
2	Plant cell	
3	Cytoplasm	

4	Nucleus	
5	Amino acids, genetic codes Protein structure	
6	Protein synthesis	
7	Description, structure and regulation of enzymes and enzyme kinetics	
8	Repeating courses and midterm exam	
9	Structure of lipids and their metabolism	
10	Structure of carbohydrates and their metabolism	
11	Electron transfer system	
12	Photosynthesis	
13	Nitrogen metabolism and nitrogen fixation	
14	Secondary metabolites	

Assessment			
Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	2.00	28.00
Quiz	0	0.00	
Practicals/Labs	0	0.00	0.00
Self study and preperation	13	2.00	26.00
Final Exam	1	60.00	
Homeworks	0	0.00	0.00
Projects	0	0.00	0.00
Contribution of Term (Year) Learning Activities to	40.00		
Field Studies	0	0.00	0.00
Midterm exams	1	24.00	24.00
Contribution of Final Exam to Success Grade	60.00		
Others	0	0.00	0.00
Final Exams	1	48.00	48.00
Measurement and Evaluation Techniques Used in the	Midterm and final exams		
Total Work Load			150.00
Total ECTS			4.20
ECTS Credit of the Course			3.00

ÖK5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK6	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK7	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK8	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK9	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK10	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LO: Learning Objectives    PQ: Program Qualifications																
Contribution Level:	1 very low			2 low			3 Medium			4 High			5 Very High			