

# GENERAL BOTANY

1	Course Title:	GENERAL BOTANY
2	Course Code:	ORMZ103
3	Type of Course:	Compulsory
4	Level of Course:	Short Cycle
5	Year of Study:	1
6	Semester:	1
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:	Öğr. Gör. Dr. GÜLŞAH BAĞÇIVAN
15	Course Lecturers:	Meslek Yüksekokulları Yönetim Kurullarının görevlendirdiği öğretim elemanları
16	Contact information of the Course Coordinator:	Öğr.Gör.Dr.Gülşah BAĞÇIVAN glshbagcivan@uludag.edu.tr Adres: Uludağ Üniversitesi Büyükşehir Meslek Yüksekokulu, Orhan Mah., Dr. İbrahim Öktem Cad., No: 28, 16990 Büyükşehir/Bursa
17	Website:	
18	Objective of the Course:	Provide an understanding of basic concepts of plant cell, chemical composition of the cell, cell wall, membrane structure and the relationship between the organelles, cytoskeleton and cell movement, the plasma membrane structure and transport of small molecules, an understanding of the cell cycle, differences of plant tissues between groups of plants.
19	Contribution of the Course to Professional Development:	It gives the individual the ability to recognize and distinguish forest trees and shrubs in our country.
20	Learning Outcomes:	
	1	To learn the important technical terms related to the Botanical.
	2	To understand the organic and inorganic structure of cell.
	3	To understand the structural and functional properties of the cell.
	4	To understand the function of life events in plants and relationships with other living organism.
	5	To understand the events of growth and development in plants.
	6	To know the meaning of the concepts of heredity and evolution in plants.
	7	To establish relationships between forest ecosystem and functions of plants.
	8	Ability to use in the field of forestry the basic information obtained from botany course .
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21	Course Content:	

	Course Content:	
Week	Theoretical	Practice
1	Organic molecules: The structure, function and types of carbohydrates (monosaccharides, disaccharides, polysaccharides). The structure, function and types of Lipids: Phospholipids, glycolipids, Cholesterol and steroids.	
2	Proteins as control and structural elements in biological systems . Amino acids the building blocks of proteins. Structure of an amino acid. Formation of a peptide bond between two amino acids. The primary, secondary, tertiary and quaternary structure in the organization of proteins.	
3	Structural proteins function in the cell membrane, Control functions of proteins acting as enzymes and hormones, The structure, function and types of vitamins.	
4	Nucleic acids: The structure, main functions and types of nucleotides. Structure of two types of nucleotide: deoxyribonucleic acid (DNA), ribonucleic acid (RNA). Types of RNA, details of RNA and its role in protein synthesis.	
5	Cellular Organization: Cell theory. Prokaryotic and Eukaryotic cells. Comparison of plant and animal cells. Cell Size and Shape, The Cell Membrane, The Cell Wall, Structure and function of the cell membrane, the development of the lipid bilayer model and the fluid-mosaic model.	
6	Active and Passive Transport: Types of passive transport: diffusion and osmosis. Hypertonic, isotonic and hypotonic solutions; Plasmolise, Deplasmolise and turgor in plant cell. Types of active transport: endocytosis and exocytosis	
7	The cytoplasm known as the material between the plasma membrane (cell membrane) and the nuclear envelope. Fibrous proteins known as cytoskeleton in the cytoplasm: microtubules and microfilaments.	
8	Repeating courses and midterm exam	
9	Cellular Organization: The function, structures, and cellular location of the eukaryotic organelles: Endoplasmic reticulum, Golgi bodies, lysosomes, mitochondria, ribosomes and nucleus.	
10	Cellular Organization: Plastids: Structure and function of the chloroplast, Leucoplasts and Chromoplasts.	
11	The Cell Cycle and Cell Division: Mitosis and Meiosis	
12	Plants tissue: Primary and secondary growth of meristematic tissue	
13	Plants tissue: Dermal tissue	
14	Plants tissue: Ground tissue, Vascular tissue.	

22	Textbooks, References and/or Other Materials:	Yıldırım Akman: Introduction to Plant Biology (Botany), Palme Publications, Ankara, 1996. Prof. Suna Bozcuk: General Botany, Hatipoğlu Printing and Publishing Industry Co. Ltd., Publication No. 82, Ankara, 2009.	
23	Assesment		
TERM LEARNING ACTIVITIES		NUMBER	WEIGHT
Midterm Exam		1	40.00
Quiz		0	0.00
Home work-project		0	0.00
Final Exam		1	60.00
Total		2	100.00
Contribution of Term (Year) Learning Activities to Success Grade		40.00	
Contribution of Final Exam to Success Grade		60.00	
Total		100.00	
Measurement and Evaluation Techniques Used in the Course		Measurement and evaluation is carried out according to the principles of Bursa Uludağ University Associate and Undergraduate Education Regulation	
24	ECTS / WORK LOAD TABLE		

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	2.00	28.00
Practicals/Labs	0	0.00	0.00
Self study and preperation	14	2.00	28.00
Homeworks	0	0.00	0.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	14.00	14.00
Others	0	0.00	0.00
Final Exams	1	20.00	20.00
Total Work Load			104.00
Total work load/ 30 hr			3.00
ECTS Credit of the Course			3.00

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ÖK6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK7	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK8	0	0	0	4	4	2	0	0	0	0	0	0	0	0	0	0	0
LO: Learning Objectives    PQ: Program Qualifications																	
Contrib ution Level:	1 very low			2 low			3 Medium			4 High			5 Very High				