

BIOCHEMISTRY APPLICATION

1	Course Title:	BIOCHEMISTRY APPLICATION
2	Course Code:	BYL0516
3	Type of Course:	Optional
4	Level of Course:	First Cycle
5	Year of Study:	2
6	Semester:	3
7	ECTS Credits Allocated:	5.00
8	Theoretical (hour/week):	3.00
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:	Doç. Dr. EGEMEN DERE
15	Course Lecturers:	Prof.Dr. Ferda ARI
16	Contact information of the Course Coordinator:	Doç. Dr. Egemen DERE Bursa Uludağ Üniversitesi Fen Ed. Fak Biyoloji Bl. Moleküler Biyoloji Anabilim Dalı Tel: 0 224 41792 edere@uludag.edu.tr
17	Website:	
18	Objective of the Course:	The aim of the course is to comprehend the importance of biochemistry for living things, to give information about biochemical pathways by explaining the cell, tissue, organs and systems.
19	Contribution of the Course to Professional Development:	Health is important to all of us. When we get sick, we are treated by doctors. We have analyzes done in hospital laboratories. Basic concepts of how both blood and urine analyzes are used in the diagnosis of diseases are learned in this course.
20	Learning Outcomes:	
	1	To understand the importance of biochemistry for living beings.
	2	Understand the importance of clinical biochemistry for patients
	3	May identify macro molecules.
	4	May evaluate the obtained datum.
	5	Learn cells, tissues, organs and systems
	6	Understands the relationship between blood pressure and pulse. Understands blood groups. Understands what to do in bleeding
	7	Learn about alcohol and other drugs
	8	To apprehend the effect of oxygen Carbon dioxide, and carbon monoxide.
	9	
	10	
21	Course Content:	
	Course Content:	
Week	Theoretical	Practice

1	Importance of biochemistry and macro molecules	
2	Electrolytes, Vitamins, Proteins, Carbohydrates, Fats, Enzymes	
3	Enzymes in Clinical Biochemistry, urine analysis Microscopy	
4	Cell Biology: Cell Membrane and Organelles	
5	Cell division Amytosis, Mitosis and Meiosis	
6	PH and Buffer systems, Introduction to metabolism, ATP	
7	Oxygen-free breathing; Glycolysis, Creps, Electron Transport system and ATP synthesis	
8	Nucleic acids structure and functions, DNA fingerprinting Protein synthesis	
9	Reproduction in living creatures, Tissues, Body regions, Muscle Structure Muscle tissue muscle contraction	
10	Blood Tissue, blood proteins and coagulation	
11	Blood circulation system, respiratory system,	
12	Action potential, Motor endplate, Nervous system, Excretory system Kidney	
13	Skeletal system, Hormones, Sensory organs	
14	What is cancer? Cancer markers and cell death. Drugs and Poisons	

Activites		Number	Duration (hour)	Total Work Load (hour)
THEORETICAL LEARNING ACTIVITIES		NUMBER	WEIGHT	
Practicals/Labs		0	0.00	0.00
Midterm Exam		1	10.00	10.00
Self study and preparation		3	10.00	30.00
Quiz		0	0.00	0.00
Homeworks		0	0.00	0.00
Home work project		0	0.00	0.00
Projects		1	15.00	15.00
Final Exam		1	3.00	3.00
Field Studies		0	0.00	0.00
Total		5	38.00	38.00
Midterm exams		1	3.00	3.00
Contribution of Term (Year) Learning Activities to		4	15.00	60.00
Others		6	10.00	60.00
Final Exams		1	3.00	3.00
Contribution of Final Exam to Success Grade		60.00		
Total Work Load				153.00
Total		100.00		
Total work load/ 30 hr				5.10
ECTS Credit of the Course				5.00

24 ECTS / WORK LOAD TABLE

25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
ÖK1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK4	0	2	2	0	4	0	0	2	2	0	0	1	0	0	0	0

ÖK5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK8	0	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			