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:	4	
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	14	3.00	42.00
Practicals/Labs	0	0.00	0.00
Midterm Exam	1	40.00	
Self study and preperation	3	10.00	30.00
Quiz	0	0.00	
Homeworks	0	0.00	0.00
Home work-project	0	0.00	
Projects	1	15.00	15.00
Final Exam	1	60.00	
Field Studies	0	0.00	0.00
Total	2	100.00	
Midterm exams	1	3.00	3.00
Contribution of Term (Year) Learning Activities to		40.00	
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
Measurement and Evaluation Techniques Used in the		Ex	
ECTS Credit of the Course			5.00

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		40.00
Contribution of Final Exam to Success Grade		60.00
Total		100.00
Measurement and Evaluation Techniques Used in the		Ex

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	1	0	0	0	0	0	0	2	0	0	0	0	0	0	0
ÖK2	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0
ÖK3	1	1	1	2	0	0	0	0	2	0	0	1	0	0	0	0
ÖK4	0	2	2	3	3	0	0	0	1	0	1	0	0	0	0	0

ÖK5	3	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
ÖK6	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0
ÖK7	2	1	0	0	0	0	0	0	2	0	0	0	0	0	0	0
ÖK8	2	1	0	0	0	0	0	0	2	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**