BIOCHEMISTRY II LAB

1	Course Title:	BIOCHEMISTRY II LAB
2	Course Code:	BYL3056
3	Type of Course:	Compulsory
4	Level of Course:	First Cycle
5	Year of Study:	3
6	Semester:	6
7	ECTS Credits Allocated:	2.00
8	Theoretical (hour/week):	0.00
9	Practice (hour/week):	0.00
10	Laboratory (hour/week):	2
11	Prerequisites:	None
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Doç. Dr. EGEMEN DERE
15	Course Lecturers:	Doç. Dr. Ferda ARI
16	Contact information of the Course Coordinator:	edere@uludag.edu.tr Tel: 0224 294 17 92
17	Website:	
18	Objective of the Course:	Aim and goal of the course, understaning structure and variety of carbohydrates and lipids. Showing qualitative and quantitative analysis of carbohydrates. Microscopic examination of carbohydrates. Showing structure and occurrence of lipids. The importance of cholesterol and cholesterol determination in blood. Showing formation of soap and saponification. General characteristics of blood and blood sample analysis.
19	Contribution of the Course to Professional Development:	
20	Learning Outcomes:	

	1	To comprehend the laboratory rules
	2	To learn how to work in a team
	3	To be able to establish testing apparatus
	4	To be able to evaluate test results and make a report from them
	5	To be able to identify carbohydrates empirically
	6	To understand the importance of cholesterol molecule
	7	To comprehend analyses of urine samples
	8	To comprehend analyses of blood samples
	9	
	10	

21 Course Content:

Course Content:

Week	Theoretical	Practice
1		Reminding laboratory rules, cleaning glass equipments and preparation for tests
2		Qualitative determination of carbohydrates (Molisch Test, Anthron Test)

3		Qualitative determination of carbohydrates (Benedict, Picric Acid, Moor Test)
4		Qualitative determination of carbohydrates (Barfoed Test, Bial Test, Seliwanoff Test, Iodine Test)
5		Quantitative determination of carbohydrates (Osazone Test) Microscopic examination of crystals
6		Quantitative determination of carbohydrates (Quantitative Benedict Test)
7		Exam and answer of examination questions, general discussion
8		Experiments related to lipids (Bayer reaction, occurring ester)
9		Experiments related to lipids (free fatty acids tests, soap formation)
10		Qualitative determination of cholesterol (Liebermann-Burchard, Salkowsky Tests)
11		Macroscopic examination of urine and identify a liquid whether it is an urine or not
12		Lipid resolution, defatted milk, searching fatty acids in soaps
13		Searching for sugar-protein in urine
14		Examination of blood samples

22	Textbooks, References and/or Other Materials:	Yrd. Doç. Dr. Egemen DERE, Biochemistry laboratory textbook
23	Assessment	

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	0	0.00	0.00
Practicals/Labs	14	2.00	28.00
Self study and preparation	3	5.00	15.00
Homeworks	1	14.00	14.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	3.00	3.00
Others	0	0.00	0.00
Final Exams	1	3.00	3.00
Total Work Load			63.00
24 ECTS / WORK LOAD TABLE			2.10
ECTS Credit of the Course			2.00

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	1	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0
ÖK2	0	0	5	3	0	2	5	0	5	3	3	2	0	0	0	0
ÖK3	0	0	2	2	0	1	5	0	1	3	2	1	0	0	0	0
ÖK4	0	0	2	2	0	2	5	0	1	2	1	1	0	0	0	0

ÖK5	4	0	2	2	0	4	4	0	2	2	1	1	0	0	0	0
ÖK6	4	0	2	2	0	4	4	0	2	2	1	1	0	0	0	0
ÖK7	4	0	2	2	0	4	4	0	2	2	1	1	0	0	0	0
ÖK8	4	0	2	2	0	4	4	0	2	2	1	1	0	0	0	0

LO: Learning Objectives PQ: Program Qualifications

Contribution Level:	**1 very low**	**2 low**	**3 Medium**	**4 High**	**5 Very High**