LIPID BIOCHEMISTRY AND MEMMBRANES

1	Course Title:	LIPID BIOCHEMISTRY AND MEMMBRANES	
2	Course Code:	BIO6400	
3	Type of Course:	Optional	
4	Level of Course:	Third Cycle	
5	Year of Study:	1	
6	Semester:	2	
7	ECTS Credits Allocated:	6.00	
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 structures of membrane and functions	
19	Contribution of the Course to Professional Development:	Fats are molecules that can be stored when taken too much. Fats play a role in the synthesis of many important molecules inside the cell. Another important task of fats is to take part in the structure of the cell membrane. Students who are successful in the course understand the fat metabolism. Better interpret molecular organizations in study subjects	
20	Learning Outcomes:		
		1	He/she can grasp to general properties of lipids
		2	He/she can classify to lipids
		3	He/she can define to structure and function of lipid derivatives
		4	He/she can relative to between lipid metabolism and other metabolisms
		5	He/she can analyze structure of cell membrane and its general properties
		6	He/she can grasp to importance of cholesterol into membrane structure
		7	He/she can grasp to function of membrane lipids
		8	He/she can grasp the relationship between other molecules and lipids
		9	He/she can analyze to membrane transports
		10	He/she can grasp to signal transduction
21	Course Content:		
	Course Content:		
Week	Theoretical		Practice

1	General properties of lipids and its classification	
2	Fatty acids, biosynthesis of triglyceride	
3	Waxes, phospholipids, sphingolipids, lipoproteins, steroids.	
4	Terpenes, prostaglandins, functions of apoproteins	
5	Digestion and absorption of lipids and its oxidations	
6	Structure of cell membrane and its properties	
7	Membrane lipids and its function	
8	Membrane proteins and its function	
9	Exam and answer of examination questions, general discussion	
10	Membrane carbohydrates and its function	
11	Differentiation of cell surface	
12	Membrane transports	
13	Organelle membranes	
14	signal transduction	

22	Textbooks, References and/or Other Materials:	Membrane Structure, J.B Finean, R.H. Michell Membrane Structural Biology, Mary Luckey Principles of Biochemistry, Geoffrey Zubay Biochemistry, Thomas M. Devlin

Activites		Number	Duration (hour)	Total Work Load (hour)
Theoretical	**R**	14	3.00	42.00
Practicals/Labs		0	0.00	0.00
Quiz	0	0.00		
Self study and preperation		14	6.00	84.00
Homeworks		2	13.00	26.00
Final Exam	1	60.00		
Projects		0	0.00	0.00
Field Studies		0	0.00	0.00
Contribution of Term (Year) Learning Activities to Success Grade	40.00			
Midterm exams		1	3.00	3.00
Others		7	4.00	28.00
Contribution of Final Exam to Success Grade	60.00			
Final Exams		1	3.00	3.00
Total Work Load				186.00
Measurement and Evaluation Techniques Used in the Course		Homework, oral and classical exam		6.20
Total work load/ 30 hr				
ECTS Credit of the Course				6.00

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	4	3	4	3	1	3	4	3	2	4	4	0	0	0	0	0
ÖK2	3	2	2	2	1	2	3	2	1	3	3	0	0	0	0	0
ÖK3	4	3	4	3	2	3	4	3	2	4	4	0	0	0	0	0
ÖK4	4	3	4	3	4	3	4	3	4	4	4	0	0	0	0	0

ÖK5	3	3	4	3	2	3	4	3	3	4	4	0	0	0	0	0
ÖK6	2	4	4	4	5	4	3	4	4	4	4	0	0	0	0	0
ÖK7	3	4	4	4	5	4	3	4	4	4	4	0	0	0	0	0
ÖK8	4	4	4	4	5	4	4	4	4	4	4	0	0	0	0	0
ÖK9	2	4	4	4	5	4	3	4	4	4	4	0	0	0	0	0
ÖK10	3	4	4	4	5	4	3	4	4	4	4	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**