THE LIPIDS AND LIPID METABOLISM

1	Course Title:	THE LIPIDS AND LIPID METABOLISM	
2	Course Code:	VBK6003	
3	Type of Course:	Compulsory	
4	Level of Course:	Third Cycle	
5	Year of Study:	1	
6	Semester:	1	
7	ECTS Credits Allocated:	4.00	
8	Theoretical (hour/week):	2.00	
9	Practice (hour/week):	0.00	
10	Laboratory (hour/week):	0	
11	Prerequisites:	-	
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Prof. Dr. MELTEM TANRIVERDİ	
15	Course Lecturers:	-	
16	Contact information of the Course Coordinator:	melcetin@uludag.edu.tr 0532 4875175 U.Ü.Veteriner Fakültesi Biyokimya ABD	
17	Website:		
18	Objective of the Course:	Comprehension of structure and function of lipids which are integral part of membranes are precursors for many molecules that are essential to metabolic pathways and play vital roles in various processes.	
19	Contribution of the Course to Professional Development:	Ability to discuss abnormalities associated with lipids which are essential components of organisms,ability to disseminate knowledge gained about lipids	
20	Learning Outcomes:		
		1	Ability to give general information about lipids
		2	Ability to define chemical properties of lipids
		3	Comprehension of differences and associations between different lipid groups
		4	Comprehension of metabolism of fatty acids and various lipid groups.
		5	Ability to assess lipid metabolism on the basis of energetics
		6	Ability to discuss abnormalities associated with lipids which are essential components of organisms.
		7	Having literature knowledge about lipids
		8	Ability to disseminate knowledge gained about lipids
		9	
		10	
21	Course Content:		

Course Content:

Week	Theoretical	Practice
1	The description and classification of lipids, formulas and properties of saturated and unsaturated fatty acids	

2	Physical and chemical properties of fatty acids and neutral lipids	
3	Structures and functional properties of triglycerides and phosphoglycerides	
4	Sphingolipids, aliphatic alcohol and waxes	
5	Steroids, zoosterins, phytosterins and mucosterins	
6	The structure, physical, chemical properties and functions of cholesterol	
7	The conjugated lipids, structure and functions of bile acids	
8	Plasma lipoproteins and their functions	
9	The digestion and absorption of lipids and synthesis of fatty acids	
10	The oxidation of fatty acids and ATP gain	
11	The metabolism of mono- and polyunsaturated fatty acids and eicosonoids	
12	The metabolism of acylglycerols and sphingolipids	
13	The synthesis, transportation and elimination of cholesterol	
14	The transportation and deposition of lipids and metabolic disorders	

22	Textbooks, References and/or Other Materials:	Biochemistry (5th edition) Berg JM., 2002. Metabolism at a Glance (At a Glance) D. K. Granner,J. G. Salway, 2004. Medical Biochemistry John W. Baynes, Marek H. Dominiczak, 2007 Biyokimya Figen Gürdöl, Evin Ademoğlu, 2006. Biyokimya L. Kalaycıoğlu, B. Serpek, M. Nizamlioğlu, N. Başpınar, A. M. Tiftik, 2000
23	Assesment	

TERM LEARNING ACTIVITIES	**NUMBER**	**WEIGHT**
Midterm Exam	0	0.00
Quiz	0	0.00
Home work-project	0	0.00
Final Exam	1	100.00
Total	1	100.00
Contribution of Term (Year) Learning Activities to Success Grade		0.00
Contribution of Final Exam to Success Grade		100.00
Total		100.00
Measurement and Evaluation Techniques Used in the Course		Final Exam

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	3.00	42.00
Homeworks	0	0.00	0.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	0	0.00	0.00
Others	4	4.00	16.00
Final Exams	1	30.00	30.00
Total Work Load			116.00
Total work load/ 30 hr			3.87
ECTS Credit of the Course			4.00

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	4	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK2	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK3	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0
ÖK4	0	2	3	4	0	0	0	0	0	0	0	0	0	0	0	0
ÖK5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK6	0	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0
ÖK7	0	0	0	0	4	0	0	0	3	0	0	0	0	0	0	0
ÖK8	0	0	0	0	0	0	0	0	0	0	4	2	0	0	0	0

LO: Learning Objectives PQ: Program Qualifications

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