PROTEIN BIOCHEMISTRY

1	Course Title:	PROTEIN BIOCHEMISTRY	
2	Course Code:	BIO 5405	
3	Type of Course:	Optional	
4	Level of Course:	Second Cycle	
5	Year of Study:	1	
6	Semester:	1	
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:	Doç.Dr. Ferda ARI	
16	Contact information of the Course Coordinator:	0 224 29 41792 / e-posta: edere@uludag.edu.tr	
17	Website:		
18	Objective of the Course:	The aim of the course is to comprehend the metabolic importance of proteins to students. It is to provide understanding of protein tasks in biological systems.	
19	Contribution of the Course to Professional Development:		
20	Learning Outcomes:		
		1	Students can grasp the structure of amino acids and their importance
		2	Student can understand the formation of peptide and the task and structure of important peptides.
		3	Student can understand the task of peptide hormones
		4	Students can grasp the protein synthesis and their regulations
		5	Student can understand protein folding
		6	Students can understand non-ribosomal protein synthesis
		7	Students can grasp the role of antigen and anti-core of protein
		8	Student can understand the purification of proteins and their obtain
		9	Students can grasp metabolism of amino acids and protein
		10	
21	Course Content:		

Course Content:

Week	Theoretical	Practice
1	1 Amino acids, Modify amino acids, nonstandard amino acids that protein structure not contain -	
2	Peptide structures and properties, biological important peptides	

3	Peptide hormones	
4	Reactions of amino acids	
5	Genetic code, synthesis of protein and regulation	
6	Protein targeting, chaperon in protein folding,	
7	Exam and answer of examination questions, general discussion	
8	Primer, secondary and tertiary folding	
9	Classification of proteins, structure and function of some important protein	
10	Bioactive peptides, synthesis by way out of the ribosome.	
11	Feature of antigen-antibody of proteins,	
12	Protein isolation and purification Fragmentation of proteins,	
13	Three-dimensional structure and crystallography,	
14	Metabolism of amino acid and protein.	

22	Textbooks, References and/or Other Materials:	Principles of Biochemistry, Lehninger, Nelson and Cox Principles of Biochemistry, Geoffrey Zubay Biochemistry, Mathews van Holde Biochemistry, Thomas M. Devlin
23	Assesment	

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	3.00	42.00
Practicals/Labs	0	0.00	0.00
Homeworks	2	20.00	40.00
Projects	1	15.00	15.00
Field Studies	0	0.00	0.00
Midterm exams	1	2.00	2.00
Others	7	6.00	42.00
Final Exams	1	3.00	3.00
Total Work Load			242.00
Total work load / 30 h			8.07
ECTS Credit of the Course			6.00

Contribution of Term (Year) Learning Activities to	50.00
Contribution of Final Exam to Success Grade	50.00
Measurement and Evaluation Techniques Used in the	

Quiz	0	0.00
Final Exam	1	50.00

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	3	0	3	4	3	5	2	2	2	0	0	0	0	0	0	0
ÖK2	3	0	3	4	3	5	2	2	2	0	0	0	0	0	0	0
ÖK3	4	0	3	4	4	5	2	2	2	0	0	0	0	0	0	0
ÖK4	5	0	4	4	3	5	3	3	2	0	0	0	0	0	0	0

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