



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Biochemistry of Proteins							
Course Code		VBY503		Course Level		Second Cycle (Master's Degree)			
ECTS Credit	5	Workload	122 (<i>Hours</i>)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course		Give basic information about protein biochemistry							
Course Content		Functional roles of proteins, amino acid composition of proteins, protein structures, protein synthesis and degradation, the classification of proteins, peptide bond synthesis, the biological importance of glycoproteins.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Individual Study					
Name of Lecturer(s)		Prof. Ayşegül BİLDİK							

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	15
Final Examination	1	60
Quiz	2	5
Assignment	4	20

Recommended or Required Reading

1	Kaya, N. (1993) Biyokimya, Atatürk Üniversitesi, Erzurum.
2	Murray, R.K. (1993) Harper's Biochemistry, Appleton and Lange, Norwalk
3	Onat, T., Emerk, K. (1997) Biyokimya, Saray, İzmir.
4	Sittman, D. (2000) Biyokimya, çev. Güner G., Nobel, İstanbul.
5	Nihat BAYŞU, Nalan Bayşu SÖZBİLİR.(2008) Biyokimya Güneş Tıp kitabevleri, 2008

Week	Weekly Detailed Course Contents	
1	Theoretical	Overview of proteins (definition, significance, structure and classification)
2	Theoretical	Functional classification of proteins.
3	Theoretical	Biological functions of proteins
4	Theoretical	Protein molecule structure: primary, secondary, tertiary and quaternary structures.
5	Theoretical	Hydrolysis of proteins.
6	Theoretical	Classification of Amino Acids.
7	Theoretical	The physical properties of amino acids
8	Theoretical	Chemical properties of amino acids.
9	Intermediate Exam	Midterm exam
10	Theoretical	Essential amino acids
11	Theoretical	The peptide bond formation and oligopeptides
12	Theoretical	Protein synthesis
13	Theoretical	Ammonia metabolism
14	Theoretical	Urea cycle
15	Theoretical	Some diseases, protein biochemistry
16	Final Exam	Final exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Assignment	4	9	1	40
Reading	5	4	2	30
Quiz	1	1	0.5	1.5
Midterm Examination	1	12	1	13



Final Examination	1	9	1	10
Total Workload (Hours)				122
[Total Workload (Hours) / 25*] = ECTS				5
*25 hour workload is accepted as 1 ECTS				

Learning Outcomes

1	To be able to respond these questions: What is Protein? What is the importance of organism?
2	To be able to classify proteins functionally.
3	To be able to comprehend the structures of proteins.
4	To be able to comprehend classification of Amino Acids, the physical and chemical properties of amino acids.
5	To be able to explain protein synthesis and degradation.
6	To be able to comprehend peptide bond formation and oligopeptides.
7	To be able to explain the metabolism of ammonia and urea cycle.
8	To be able to comprehend the biological significance of glycoproteins.

Programme Outcomes (Biochemistry (Veterinary Medicine) Master's Without Thesis)

1	To be able to tell and describe the interdisciplinary interaction with the associated fields.
2	To be able to express original ideas using his/her higher education knowledge theoretically and practically information and to be able to create original definitions, products, methods improving and questioning these ideas.
3	To be able to manage a free research according to scientific and methodological methods and be able to hypothetically and practically about his/her own field.
4	To be able to compose and interpret the information from different disciplines, and create solution suggestions and scientific information which can contribute to the solution process.
5	To be able to involve in professional organizations and institutions related with the educational background.
6	To be able to take responsibility for individual and group work, and do the assignments in line with the skills.
7	To be able to communicate with the professionals out of the field when it is necessary, and contribute to the solution as a team member.
8	To be able to tell about the production and publishing methods of scientific information.
9	To be able to design the source and the type of information that is needed related with the field and chooses the activities that s/he wants to participate, by using his/her critical thinking abilities that is developed in the education.
10	To be able to use technological devices both for professional and social purposes.
11	To be able to compose and interpret any kind of data related with the field (field observations, produced scientific information etc.) and analyzes and interprets the results according to the aims of the research.
12	To be able to define the environmental health rules and apply them for prevention.
13	To be able to apply the knowledge gained in professional level with the awareness of the needs of the region and the country, and develop a defense capability.
14	To be able to conceptualize the phenomena and the events related with the field; study scientific methods and techniques, interpret results; analyze and hypothesize methods in accordance with the results and design solution or treatment alternatives addressing the problems.
15	To be able to interpret the updates of information in the field by using all kinds of sources (scientific information, legislations etc.), and use when needed.

Contribution of Learning Outcomes to Programme Outcomes 1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High

	L1	L2	L3	L4	L5	L6	L7	L8
P2	5	5	5	5	5	5	5	5
P3	5	5	5	5	5	5	5	5
P4	4	4	4	4	4	4	4	4
P8	5	5	5	5	5	5	5	5
P11	5	5	5	5	5	5	5	5
P15	4	4	4	4	4	4	4	4

