



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Protein Biochemistry							
Course Code		KİM656		Couse Level		Third Cycle (Doctorate Degree)			
ECTS Credit	8	Workload	206 (<i>Hours</i>)	Theory	3	Practice	0	Laboratory	0
Objectives of the Course		This course aims teach the definition and classification of proteins, classification of aminoacids, acid-base behaviour of amino acids, primer, seconder, tertiary and quaterner structures of proteins, stereochemistry of proteins and its absorption spectrums, molecular organizations of proteins and protein denaturation, amino (-NH2) ve carboxy (-COOH) group reactions of proteins, R group reactions of amino acids, protein synthesis mechanism in the cell							
Course Content		Classification of proteins and amino acids, properties of proteins, denaturation and solubility, reactions of proteins, intra cellular synthesis mechanisms.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion, Individual Study					
Name of Lecturer(s)									

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	20
Final Examination	1	60
Assignment	2	20

Recommended or Required Reading

1	Instructor notes
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Week	Weekly Detailed Course Contents	
1	Theoretical	Definition and classification of proteins
2	Theoretical	Classification of aminoacids
3	Theoretical	Acid-base behaviour of amino acids
4	Theoretical	Primer, seconder, tertiary and quaterner structures of proteins
5	Theoretical	Stereochemistry of proteins and its absorption spectrums
6	Theoretical	Molecular organizations of proteins and protein denaturation
7	Theoretical	Protein solubility and preperities of precipitation
8	Intermediate Exam	Midterm
9	Theoretical	Amino (-NH ₂) ve carboxy (-COOH) group reactions of proteins
10	Theoretical	R group reactions of amino acids
11	Theoretical	Protein synthesis mechanism in the cell
12	Theoretical	Enzymes
13	Theoretical	Protein purification
14	Theoretical	Student presentations
15	Theoretical	Student presentations
16	Final Exam	Final Exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	3	42
Assignment	2	40	0	80
Midterm Examination	1	40	2	42
Final Examination	1	40	2	42
Total Workload (Hours)				206
[Total Workload (Hours) / 25*] = ECTS				8
*25 hour workload is accepted as 1 ECTS				



Learning Outcomes

1	To have knowledge about chemical structure of proteins.
2	To learn the techniques of purification and identification of proteins.
3	To learn the applications about purification and identification of proteins.
4	To have knowledge about enzyme isolation.
5	To have knowledge about enzymes

Programme Outcomes (Chemistry Doctorate)

1	Depending on the master degree competences, develops, insights and innovates current and advanced knowledge and/or research in proficiency level.
2	Gains high skill levels in using research methods in the field of his/her study.
3	Comprehends the interaction between disciplines related to his/her field. Reaches to original results using his/her expertise in order to analyze, synthesize and evaluate new and complicated ideas.
4	Enlarges the boundaries of his/her field of knowledge by publishing at least one research paper in national and/or international peer-reviewed journals.
5	Defends his/her original opinions related to his/her field before authority and communicates effectively illustrating his/her competence.
6	May communicate and debate written, orally and visually in European Language Portfolio level C1.
7	Follows the developments in computer software and information and communication technologies developed for his/her research area and uses these in order to solve research problems.
8	Collaborates for scientific research with national and international research teams.
9	Contributes to the course of creation and maintenance of knowledge based society and by introducing the scientific, social and cultural developments to the society he/she is living in.

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

	L1	L2	L3	L4	L5
P1	5	5		5	5
P2	5	5		5	5
P3	5	5		5	5
P4			5		3
P5			5		3
P6			5		3

