



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Enzymes and Coenzymes							
Course Code		VBY504		Course Level		Second Cycle (Master's Degree)			
ECTS Credit	5	Workload	125 (<i>Hours</i>)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course		To give basic knowledge about enzyme and koenzyme							
Course Content		Structure and classification of enzymes, Michealis-Menten, equation Km, enzyme inhibitions, the factors which influence activity of enzymes, principles of enzymatic analyses, use of enzymes at the medicine and industry							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion					
Name of Lecturer(s)		Prof. Ayşegül BİLDİK, Prof. Pınar Alkım ULUTAŞ							

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

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	Introduction to enzymes, localization of enzymes in the cell
2	Theoretical	Enzymes's chemical structure
3	Theoretical	Enzymatic reactions and activation energy.
4	Theoretical	Catalysts and enzymatic catalysis
5	Theoretical	Enzyme's classification
6	Theoretical	Enzyme kinetic
7	Theoretical	The factors affecting enzyme's activity
8	Intermediate Exam	Midterm exam
9	Theoretical	Activators, inhibitors and enzymes inhibition
10	Theoretical	Enzyme systems
11	Theoretical	Isoenzymes
12	Theoretical	Coenzymes
13	Theoretical	Quizzes
14	Theoretical	Principles of enzymatic analysis
15	Theoretical	The use of enzymes in medicine
16	Final Exam	Final exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	15	3	2	75
Assignment	2	6	0.5	13
Midterm Examination	1	16	1	17



Final Examination	1	19	1	20
Total Workload (Hours)				125
[Total Workload (Hours) / 25*] = ECTS				5
*25 hour workload is accepted as 1 ECTS				

Learning Outcomes

1	To be able to respond to these questions: What is enzyme? What is its importance in the organism?
2	To be able to classify enzymes.
3	To be able to comprehend the kinetic of enzymes.
4	To be able to comprehend the factors affecting the activity of enzyme.
5	To be able to comprehend enzymatic analysis's principles
6	To be able to explain the use of enzymes in medicine and industry.

Programme Outcomes (Biochemistry (Veterinary Medicine) Master)

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
P2	4	4	4	4	4	4
P3	3	3	3	3	3	3
P4	4	4	4	4	3	4
P8	3	3	3	3	3	3
P11	4	4	4	4	4	4
P15	3	3	3	3	4	3

