



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Anorganic Metabolism							
Course Code		VBY527		Couse Level		Second Cycle (Master's Degree)			
ECTS Credit	5	Workload	131 (<i>Hours</i>)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course		Functions and importance of the various mineral substances in the organism to know and teaching of the metabolism of important minerals							
Course Content		Hormones that regulate mineral metabolism, calcium and phosphorus metabolism, sodium, potassium, clorine, magnesium functions and lack of these elements. Biyological importance and failure of zinc, copper, iron, manganese, molybdenum, cobalt, iodine, fluorine, sulphur, selenium, chromium.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Individual Study					
Name of Lecturer(s)		Prof. Funda KIRAL, Prof. Serap ÜNÜBOL AYPAK							

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	25
Final Examination	1	60
Quiz	2	10
Assignment	2	5

Recommended or Required Reading

1	Nelson D.L., Cox M.M (2005) Lehninger Biyokimyanın İlkeleri. Çeviri Editörü: Nedret Kılıç. Palme Yayıncılık. ANKARA.
2	Nihat BAYŞU, Nalan Bayşu SÖZBİLİR.(2008) Biyokimya Güneş Tıp kitabevleri, 2008

Week	Weekly Detailed Course Contents	
1	Theoretical	Introduction of inorganic metabolism
2	Theoretical	Hormones that regulate mineral metabolism
3	Theoretical	Calcium and phosphorus metabolism
4	Theoretical	The main functions of calcium and phosphorus in the organism
5	Theoretical	Magnesium functions, failure, absorption and excretion
6	Theoretical	Sodium, potassium, chlorine
7	Theoretical	Sulfur
8	Theoretical	Midterm exam
9	Theoretical	Iron and chromium
10	Theoretical	Copper and zinc
11	Theoretical	Manganese and molybdenum
12	Theoretical	Cobalt and iodine
13	Theoretical	Selenium and fluorine
14	Theoretical	Mineral values in the blood of various animals

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	3	2	70
Assignment	4	4	1	20
Reading	8	1	0	8
Quiz	2	5	1	12
Final Examination	1	20	1	21
Total Workload (Hours)				131
[Total Workload (Hours) / 25*] = ECTS				5

*25 hour workload is accepted as 1 ECTS



Learning Outcomes

1	To be able to comprehend hormones that regulate mineral metabolism
2	To be able to comprehend the functions of various minerals in the organism
3	To be able to explain how the absorption and excretion of various minerals.
4	To be able to analyse the relationship of various minerals with each other.
5	to learn cofactor roles of elements

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
P2	5	5	5	5
P4		5	5	
P9		5	5	

