



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Analyses of Mineral Substance in Blood							
Course Code		VBY630		Course Level		Third Cycle (Doctorate Degree)			
ECTS Credit	4	Workload	100 (<i>Hours</i>)	Theory	1	Practice	2	Laboratory	0
Objectives of the Course		To teach macro and micro elements in the blood and their analysis methods							
Course Content		Detection of macro and trace minarels existing in blood using different methods and principles of these methods							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Experiment, Demonstration					
Name of Lecturer(s)									

Assessment Methods and Criteria

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

Recommended or Required Reading

1	Klinik biyokimya (Yüregir, Güneş T.),
2	Klinik biyokimya = clinical biochemistry for medical students(Laker, M. F.),
3	Klinik biyokimya analiz metodları (Adam, Bahattin)

Week	Weekly Detailed Course Contents	
1	Theoretical	Macro elements in the blood
	Practice	Laboratory equipment presentation
2	Theoretical	Macro element's functions
	Practice	Preparation of work plan
3	Theoretical	Macro element's deficiency
	Practice	Preparation of used equipments
4	Theoretical	Macro element's excess
	Practice	Sample preparation
5	Theoretical	Micro elements in the blood
	Practice	Ca assay in the blood
6	Theoretical	Micro element's functions
	Practice	P assay in the blood
7	Theoretical	Micro element's deficiency
	Practice	Mg assay in the blood
8	Practice	Fe assay in the blood
	Intermediate Exam	Midterm exam
9	Theoretical	Micro element's excess
	Practice	Zn assay in the blood
10	Theoretical	Preparation for element analysis in the blood
	Practice	Cu assay in the blood
11	Theoretical	Research to analysis methods according to elements
	Practice	Na assay in the blood
12	Theoretical	Comparison of different the analysis methods
	Practice	K assay in the blood
13	Theoretical	Selection method
	Practice	Cl assay in the urine
14	Theoretical	The parameters affecting the analysis results
	Practice	Demonstration of ICP
15	Practice	Element determination in ICP



16	Final Exam	Final exam
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Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	15	1	1	30
Lecture - Practice	15	0	2	30
Reading	1	10	0	10
Midterm Examination	1	14	1	15
Final Examination	1	14	1	15
Total Workload (Hours)				100
[Total Workload (Hours) / 25*] = ECTS				4

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	to learn macro and micro elements which are important for the organism
2	to learn pathological conditions in deficiency and excess of the elements
3	to learn research the method for element analysis and practice
4	to be have ability to analyze's results and interpret
5	To learn the parameters affecting the analysis results

Programme Outcomes (Biochemistry (Veterinary Medicine) Doctorate)

1	Has a deep and broad knowledge about the field and the interdisciplinary area related with the field through the achievements gained in undergraduate and professional levels.
2	Has the knowledge to create original ideas, analyze them and develop definition/product/diagnosis methods by using the knowledge gained in undergraduate and/or professional experience, when needed.
3	Is knowledgeable about theories and practices in methodological and scientific research methods to run an independent research.
4	Excels in the laboratory, clinical and similar fields by using the theoretical and practical information gained in former education, and has the ability to create solutions in related fields.
5	Designs and develops scientific methodology for the advanced level/newly defined/emerged problems about the field.
6	Excels in the known scientific methods in the field for the advanced level/ newly defined/emerged problems.
7	Designs unique researches and implements independently.
8	Analyzes, synthesizes and evaluates the new ideas in related fields by using critical thinking.
9	Plans, creates teams and carries out the interdisciplinary research projects in order to create solutions to the known/newly defined problems.
10	Joins to congresses, panels, symposiums, workshops, seminars, article discussions and problem solving sessions in different disciplines, and exchanges information with the other professionals to contribute to the solutions.
11	Broadens the borders of scientific information by publishing scientific articles in national and/or international peer-reviewed journals.
12	Creates new ideas and methods to contribute to the technological, social and cultural progress, or to help the development of information society by using the theoretical, practical, independent research, abilities responsibly.
13	Designs and implements social projects with the awareness of creating an information society.
14	Compiles and interprets any type of data (field observation, scientific knowledge etc.) in accordance with the aims.
15	Develops and uses strategies about related topics with the field.
16	Implements and defends institutional and practical information and abilities in accordance with the needs of the country and the world, and changes when necessary.
17	Follows up and uses all the updates about the field (scientific information, legislations etc.), and has the qualification to change them.
18	Adopts lifelong learning as a principle and acknowledges that the information gained through research is the most valuable gain.

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	3				3
P3	3				
P4		3			3
P7			3		
P8			3		



P10			3		3
P11	3		3		
P12	3	3			
P14				3	
P15	3				
P17	3			3	3
P18		3			

