



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Nutritional Pharmacology (Vitamins and Minerals)							
Course Code		VFT623		Couse Level		Third Cycle (Doctorate Degree)			
ECTS Credit	6	Workload	147 (<i>Hours</i>)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course		To inform about the fat soluble vitamins, water soluble vitamins, minerals such as calcium, phosphorus, chrome, iron, flour, cobalt, cooper and trace elements							
Course Content		Fat soluble vitamins, water soluble vitamins, minerals such as calcium, phosphorus, chrome, iron, flour, cobalt, cooper and trace elements are examined.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion, Case Study, Individual Study, Problem Solving					
Name of Lecturer(s)									

Assessment Methods and Criteria

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

Recommended or Required Reading

1	Adams H.R. (1995). Veterinary Pharmacology and Therapeutics, Iowa University Press
2	Hodgson, E (2010) A textbook of modern toxicology, 4 th Edition, John Wiley and Sons, Inc., Hoboken, Canada.s
3	Beverly J.McCabe, Jonathan J.W. Jonathan J. (2003). Handbook of food-drug interactions, CRC Press

Week	Weekly Detailed Course Contents	
1	Theoretical	Importance of nutrition
2	Theoretical	Importance of vitamins and minerals in nutrition
3	Theoretical	Vitamin requirement. Compounds causing vitamin deficiency
4	Theoretical	Fat soluble vitamins (Vitamins A and D)
5	Theoretical	Fat soluble vitamins (Vitamins E and K)
6	Theoretical	Water soluble vitamins
7	Intermediate Exam	Midterm exam
8	Theoretical	Water soluble vitamins
9	Theoretical	Flavonoids
10	Theoretical	Examination of calcium and phosphorus
11	Theoretical	Examination of cobalt and cupper
12	Theoretical	Examination of chrome, flour, and iode
13	Theoretical	Examination of iron, manganese and molybdenum
14	Theoretical	Nutrition and Cancer
15	Theoretical	Discussion
16	Final Exam	Final

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	2	2	56
Assignment	6	2	2	24
Individual Work	12	2	2	48
Midterm Examination	1	5	2	7



Final Examination	1	10	2	12
Total Workload (Hours)				147
[Total Workload (Hours) / 25*] = ECTS				6
*25 hour workload is accepted as 1 ECTS				

Learning Outcomes

1	To accentuate the importance of vitamins and minerals
2	To inform about fat and water soluble vitamins
3	To learn minerals
4	To find out and use resources about the profession in the area.
5	To give lectures and/or presentations and discuss with professionals in the area.

Programme Outcomes (Pharmacology and Toxicology (Veterinary Medicine) Doctorate)

1	Gains expert knowledge on field of pharmacology and toxicology in veterinary medicine and, gains expert knowledge on interdisciplinary interaction in pharmacology and toxicology
2	To be equipped with the knowledge to develop original ideas about necessary issues in the field by using of both graduate and expertise levels knowledge, to be able to develop original definitions, products and diagnostic procedures, etc. via deepening and questioning these knowledge.
3	Develops and uses strategies in his/her field of expertise in PhD Program of Pharmacology and Toxicology
4	Reviews, evaluates and interprets any data (field observations, available scientific information etc.) towards a specific purpose.
5	Gains expert knowledge on the function and basic pharmacological features of pharmacology and sub-branches of science, relationship between the drug and poison, pharmacokinetic, effects of the drugs, the dose-intensity and dose-effect relationship.
6	Gains expert knowledge on the function and basic toxicological features of poison, classifications and types of poisoning, toxicokinetic, general principles of treatment of poisoning.
7	Can offer training to technical staff who will work in pharmacology and toxicology laboratory
8	Reach to competence to prepare courses at the undergraduate level
9	Determines and uses laboratory equipment and consumables in a pharmacology and toxicology laboratory.
10	To be able to plan an interdisciplinary project and build team for the known or new defined problems and to manage and complete such a project when necessary.
11	To share his/her knowledge in the field with others by attending at field-related or other congresses, panels, symposiums, workshops, seminars, article discussions and problem solving sessions, etc., and to contribute to the solution in the team by establishing relations with the experts in different fields.
12	To contribute the scientific knowledge in the field via publications in national and international peer-reviewed scientific journals.
13	Takes roles in vocational organizations and institution.
14	Forms ideas to solve complex problems using theoretical and practical information gained throughout the pharmacology and toxicology education.
15	To adopt lifelong learning as a principle and acknowledge that the information gained through research is the most valuable gain.
16	Knows and protects rights of ideas and industrial property (patent right)

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	4	4	4		
P2	2	2	2	4	
P3	4	4	4	5	
P4	4	4	4		
P5	3	3	3		
P6	5	5	5		
P7	5	5	5		
P8					4
P9	4	5	5		
P10	5	4	5		
P11	4	5	4		5
P12				4	
P13	4	4	4		
P14					5
P15	5	5	5		

