AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Nutritional Pharmacology (Vitamins and Minarels)								
Course Code	VFT530		Couse Level	Second Cycle (Master's Degree)					
ECTS Credit	4	Workload	94 *(Hours)*	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)	Prof. Cavit KUM								

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

Recommended or Required Reading	
1	Klaassen, C. (2008) Casarett&Doull'sToxicology: The Basic Science of Poisons, 7th Edition, McGraw-HillCompanies, USA.
2	Hodgson, E (2010) A textbook of modern toxicology, 4 th Edition, John WileyandSons, Inc., Hoboken, Canada.
3	Casarett&Doull's Toxicology - The Basic Science of Poison. McGraw-Hill Press
4	Adams H.R. (1995). VeterinaryPharmacologyandTherapeutics, Iowa UniversityPress
5	Beverly J.McCabe, Jonathan J.W. Jonathan J. (2003). Handbook of food-druginteractions, CRC Press
6	Adams H.R. (1995). VeterinaryPharmacologyandTherapeutics, Iowa UniversityPress
7	Kayaalp O. (2008). Klinik Farmakolojinin Esasları ve Temel Düzenlemeler, Pelikan

Week	Weekly Detailed Course Contents	
1	Theoretical	Introduction
	Practice	Importance of nutrition
2	Theoretical	Vitamins
	Practice	Importance of vitaminsandminerals in nutrition
3	Theoretical	Vitamins
	Practice	Vitamin reqirement. Compoundscausing vitamin deficiency
4	Theoretical	Vitamins
	Practice	Fatsolublevitamins (Vitamins A and D)
5	Theoretical	Vitamins
	Practice	Fatsolublevitamins (VitaminsEandK)
6	Theoretical	Vitamins
	Practice	Watersolublevitamins
7	Practice	Midterm exam
	Intermediate Exam	Midterm exam
8	Theoretical	Vitamins
	Practice	Watersolublevitamins
9	Theoretical	Vitamins
	Practice	Flavonoids
10	Theoretical	Minerals
	Practice	Examination of calciumandphosphorus
11	Theoretical	Minerals
	Practice	Examination of cobaltandcupper
12	Theoretical	Minerals

12	Practice	Examination of chrome, flour, andiode
13	Theoretical	Minerals
	Practice	Examination of iron, manganeseandmolybdenum
14	Theoretical	Termpaper
	Practice	NutritionandCancer
15	Theoretical	Discussion
	Practice	Generallyassessment
16	Final Exam	Final

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	1	2	42
Term Project	1	1	5	6
Project	5	1	2	15
Individual Work	5	1	1	10
Midterm Examination	1	10	2	12
Final Examination	1	7	2	9
			Total Workload (Hours)	94
			[Total Workload (Hours) / 25*] = **ECTS**	4
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	Toaccentuatetheimportance of vitaminsandminerals
2	Toinformaboutfatandwatersolublevitamins
3	Tolearnminerals
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 *(Veterinary Pharmacology and Toxicology Master's Without Thesis)*	
1	to be able to comprehend expert knowledge on field of pharmacology and toxicology in veterinary medicine
2	to be able to define expert knowledge on interdisciplinary interaction in pharmacology and toxicology
3	to be able to formulate ideas to solve complex problems using theoretical and practical information gained throughout the pharmacology and toxicology education.
4	to be able to integrate and interpret information in the area of pharmacology and toxicology with information in different fields and, if the need arises, provides scientific information and solutions to solve problems.
5	to be able to develop and use strategies in his/her field of expertise in Master's Program of Pharmacology and Toxicology
6	to be able to comprehend methods of obtained and submitted scientific knowledge
7	to be able to analyse current information related to his/her field of expertise (scientific information, procedures etc.) and use them when necessary
8	to be able to apply technological tools in social relationships of vocational and professional environment.
9	to be able to review, evaluate and interpret any data (field observations, available scientific information etc.) towards a specific purpose.
10	to be able to comprehend 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
11	to be able to identify expert knowledge on the function and basic toxicological features of poison, classifications and types of poisoning, toxicokinetic, general principles of treatment of poisoning.
12	to be able to define and use laboratory equipment in a pharmacology and toxicology laboratory.

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		
P3	4	4	4		5
P4	4	4	4		4
P5	3	3	3		5
P6	5	5	5	5	5

P7	5	5	5	4	
P8					4
P9	4	5	5	5	5
P10	5	5	5		
P11	4	4	4		