AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Forensic Toxicology and Analytical Methods								
Course Code	VFT625		Couse Level	Third Cycle (Doctorate Degree)					
ECTS Credit	6	Workload	149 *(Hours)*	Theory	1	Practice	2	Laboratory	0
Objectives of the Course	To be informed about legal aspects of forensic toxicology and poisoning, chemical substance dose-effect relationship, the negative effects of chemicals in living things, forensic toxicology, postmortem toxicology, drug analysis.								
Course Content	Legal aspects of forensic toxicology and poisoning, chemical substance dose-effect relationship, the negative effects of chemicals in living things, forensic toxicology, postmortem toxicology, drug analysis are examined.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Experiment, Demonstration, 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	Principles of Biochemical Toxicology, 3rd Edition, John TIMBRELL; Taylor & Francis Group Press, London, 2000.
2	Plant Phenolics and Human Health: Biochemistry, Nutrition, Pharmacology, Cesar G FRAGA (Editor); A John Willey & Sons Inc. Publication, 2010.
3	Principles and Methods of Toxicology, A. Wallace HAYES, Edward BROTHERS; Ann Arbor Press, 2001.
4	Modern Toxicology, Ernest HODGSON, Patricia E. LEVI; Elsevier, London, 1987.

Week	Weekly Detailed Course Contents	
1	Theoretical	The importance of forensic toxicology
	Practice	Review and preparation of report
2	Theoretical	Criminal law, the legal responsibilities of the physician
	Practice	The purchase of material and sample preparation laboratory practices
3	Theoretical	Conservation and storage of samples
	Practice	The sample, the physical examination
4	Theoretical	Forensic toxicology and methods of analysis
	Practice	Sample of biological material separation techniques
5	Theoretical	Forensic toxicology and methods of analysis
	Practice	Advanced analysis techniques, and use of the devices used
6	Theoretical	Forensic toxicology and methods of analysis
	Practice	Advanced analysis techniques, and use of the devices used
7	Theoretical	Article discussion
	Practice	Article presentation
8	Intermediate Exam	Midterm exam
9	Theoretical	Forensic toxicology, therapeutic and addictive properties of drugs
	Practice	Poisons and decomposition of volatile and nonvolatile
10	Theoretical	Forensic toxicology and properties of essential drugs
	Practice	The separation of pesticides
11	Theoretical	Forensic toxicology and properties of pesticides
	Practice	Significant decomposition of metallic poisons
12	Theoretical	Forensic toxicology and properties of metals
	Practice	Analysis of the specimen at TLC
13	Theoretical	Forensic toxicology and properties of toxic anions

13	Practice	Analysis of the specimen at HPLC
14	Theoretical	Forensic toxicology, poisons, and features
	Practice	Analysis of the specimen at GC
15	Theoretical	Article discussion
	Practice	Article presentation
16	Final Exam	Final

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	2	1	42
Lecture - Practice	14	2	2	56
Assignment	3	2	1	9
Individual Work	5	2	1	15
Midterm Examination	1	10	1	11
Final Examination	1	15	1	16
			Total Workload (Hours)	149
			[Total Workload (Hours) / 25*] = **ECTS**	6

**25 hour workload is accepted as 1 ECTS*

Learning Outcomes

1	Learn about forensic toxicology and the study area.
2	Learn about forensic toxicological analysis.
3	Learn about applying the methods of analysis and results evaluation.
4	Learn about the use of the devices in the analysis.
5	To find out and use resources about the profession 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	5	5	4	4	

P2					4
P3	4	3	5	5	5
P6	4	3	5	4	
P7	5	4	5	5	
P8	4	3	5	4	
P9	5	5	5	3	
P10	5	5		4	
P11	4	3	5	5	
P12	5	4	5	4	4
P13	4	5	5	5	
P14	5		4	3	
P15	4	4	5	4	
P16	4	3	3	5	