



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Forensic Toxicology and Analytical Methods							
Course Code		VFT550		Course Level		Second Cycle (Master's Degree)			
ECTS Credit	4	Workload	94 (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 and Methods of Toxicology, A. Wallace HAYES, Edward BROTHERS; Ann Arbor Press, 2001.
2	Modern Toxicology, Ernest HODGSON, Patricia E. LEVI; Elsevier, London, 1987.
3	Handbook of Experimental Pharmacology – 199; Comparative and Veterinary Pharmacology, Fiona CUNNINGHAM, Jonathan ELLIOTT, Peter LEES (Editors); Springer Press, 2009.
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	Paper presentation
8	Intermediate 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 ITK
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	Method to determine the applications guide
16	Final Exam	Final

### Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	2	1	42
Lecture - Practice	14	1	2	42
Quiz	1	5	1	6
Midterm Examination	1	3	1	4
Total Workload (Hours)				94
[Total Workload (Hours) / 25*] = ECTS				4

\*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 give lectures and/or presentations and discuss with professionals in the area.

### Programme Outcomes (Veterinary Pharmacology and Toxicology Master)

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
P3	5		4		4
P4	5		4		4
P5	4				5
P6		5			5
P8		4		4	5
P9			4		5
P12				4	

