AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Applications and Usages of Drugs in Laboratory Animals								
Course Code	VFT646		Couse Level	Third Cycle (Doctorate Degree)					
ECTS Credit	6	Workload	150 *(Hours)*	Theory	1	Practice	2	Laboratory	0
Objectives of the Course	In accordance with general principles applicable to the treatment of diseases of viral infections in laboratory animals, prevention of secondary infections, bacterial and fungal infections in laboratory animals in treatment which is used in addition to the effects of drug use and drug use in general and local anesthetics and their applications to provide information about, and gain the ability to apply.								
Course Content	Laboratory animals and their characteristics, detection and inspection, maintenance and hygiene rules, in accordance with general principles applicable to the treatment of diseases of viral infections in laboratory animals, prevention of secondary infections, and the effects of drug use in treatment of bacterial and fungal infections and an important addition to the general and local anesthetic drug used in laboratory animals and applications.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Experiment, Demonstration, Discussion, 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	Veterinary Pharmacology and Therapeutics, 8th Edition, Jim E. Riviere (Editor), Mark G. Papich (Editor), 2009.
2	Goodman and Gilman's The Pharmacological Basis of Therapeutics 11th Edition, McGraw-Hill, 2006 (Eds. Brunton, Lazo, Parker, Buxton and Blumenthal)
3	Lippincott's Illustrated Reviews: Pharmacology, 3rd Edition, Lippincott Williams and Wilkins, 2005 (Eds. Howard, Mycek, Harvey & Champe)
4	Pharmacology. Franklin A. Ahrens. Baltimore, Md. London Williams & Wilkins 1996.
5	Basic and Clinical Pharmacology, 9th Edition, McGraw-Hill, New York, 2004 (Ed. B. Katzung)

Week	Weekly Detailed Course Contents	
1	Theoretical	Laboratory animals and amenities
	Practice	Presentation of laboratory animals-1
2	Theoretical	Laboratory animal care, feeding and hygiene rules
	Practice	Presentation of laboratory animals-2
3	Theoretical	Identification and examination of laboratory animals
	Practice	Kept in laboratory animals-1
4	Theoretical	Common diseases of laboratory animals
	Practice	Kept in laboratory animals-2
5	Theoretical	Treatment and bacterial diseases of laboratory animals
	Practice	Methods of drug administration in laboratory animals-1
6	Theoretical	Treatment and viral diseases of laboratory animals
	Practice	Methods of drug administration in laboratory animals-2
7	Theoretical	Treatment and fungal diseases and treatment of laboratory animals
	Practice	Methods of drug administration in laboratory animals-3
8	Intermediate Exam	Midterm exam
9	Theoretical	Metabolic diseases and treatment of laboratory animals

9	Practice	Regulations on laboratory animals cage-1
10	Theoretical	Toxicity and treatment of laboratory animals
	Practice	Laboratory animals lattice arrangements-2
11	Theoretical	Laboratory animals and treatment of skin diseases
	Practice	Metabolic cages applications on laboratory animals-1
12	Theoretical	Treatment of parasitic diseases of laboratory animals
	Practice	Metabolic cages applications on laboratory animals-2
13	Theoretical	Treatment of neoplastic diseases of laboratory animals
	Practice	Metabolic cages applications on laboratory animals-3
14	Theoretical	Euthanasia of laboratory animals
	Practice	Euthanasia of laboratory animals
15	Theoretical	Discussion
	Practice	Literature discussion
16	Final Exam	Final

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	2	1	42
Lecture - Practice	15	2	2	60
Assignment	2	8	1	18
Midterm Examination	1	12	1	13
Final Examination	1	16	1	17
			Total Workload (Hours)	150
			[Total Workload (Hours) / 25*] = **ECTS**	6

**25 hour workload is accepted as 1 ECTS*

Learning Outcomes

1	Laboratory animals will have information on drug applications, and learns
2	Laboratory animals have knowledge about drug use and learn.
3	To find out and use resources about the profession in the area.
4	To learn knowledge and propose suggestions on 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	3			
P2			4		
P3			4	5	
P4	5			4	
P5	4	5			
P8	4	4			4
P9	5	4			
P11				5	5
P12			4		
P14		3		5	5