

University: Damanhur
Faculty: Veterinary Medicine
Department: Pharmacology



Pharmacology Course Specifications (2012 - 2013)

Program(s) on which the course is given: BVSc
Department offering the program: ---
Department offering the course: Pharmacology
Major or Minor element of programs: Major
Academic year /Level: 3rd Year 1st and nd semesters
Date of specification approval:

A. BASIC INFORMATION

Title: Pharmacology **Code:** APHARM, BPHARM
Hours:
Lectures: 3 hrs/week **Practical:** 2 hrs/week **Total:** hours/week

B. PROFESSIONAL INFORMATION

. Overall aims of the course:

- **Knowledge:** About the pharmacological bases of therapeutics, clinical Pharmacology and drug-drug interactions in diseased animals. Practical experiments on isolated as well as intact animal preparations to understand the mode and site of action of drugs.
- **Skills:** Advantages and disadvantages of drug-drug interactions in veterinary practice. Pharmacological control of various drug combinations.

. Intended Learning Outcomes (ILOs) of the Course:

a. Knowledge and Understanding:

- a** Define the pharmacokinetics of commonly used veterinary drugs.
- a** Define the pharmacodynamics of commonly used veterinary drugs.
- a** Explain the expected adverse effects of commonly used veterinary drugs.
- a** Identify the expected adverse effects of drugs in diseased animals.

b. Intellectual Skills:

- b** Apply the chemotherapeutic agents on pharmacological bases to diseased animals.
- b** Compare between the chemotherapeutic agents to choose the suitable drug to diseased animals.
- b** How to manage with problems due to drug administration.
- b** Evaluate the drugs according to their side effects and efficacy .

c. Professional and Practical Skills:

- c Carry out routes and techniques of drug administration.
- c Practicing dosage calculations, using the metric system and other systems of measurements.
- c Capable of using lab equipments and/or applying standard procedures for drug evaluation .
- c Designing and carry out research projects.

d. General and Transferable Skills:

- d Report writing about medications should be administered, and any adverse reactions that may occur.
- d Advise the optimal route of drug administration to obtain the maximal bioavailability.
- d Group working, good management and problem solving ability.

. Contents:

1st Semester	
Topic	Lectures
General Pharmacology:	14
▪ Pharmacopeias	
▪ Pharmaceutical preparations	
▪ Drug administration	
▪ Pharmacokinetics	
▪ Drug residues	
▪ Pharmacodynamics	
▪ Factors affecting drug actions	
▪ Drug / drug interactions	
Special Pharmacology Drugs acting on:	23
▪ Central nervous system	
▪ Autonomic nervous system	
▪ Cardiovascular system	
2nd Semester	
Special Pharmacology Drugs acting on:	21
▪ Reproductive system	
▪ Respiratory system	
▪ Gastrointestinal tract	
▪ Urinary system	
▪ Skin	
▪ Eye	
▪ Tissue metabolism	
Autacoids and anti-inflammatory agents	3
Chemotherapy	18
Antiseptic and disinfectants	3
Drug Toxicology	4
Clinical Pharmacology	4
Total	90

1st Semester	
Practical Topic 1st semester	No. of hours
▪ Sources of drugs.	2
▪ Laboratory animals.	2
▪ Action of autonomic drugs on isolated perfused rabbit's intestine.	2
▪ Demonstration of the mode of action and site of action of an unknown drug on isolated rabbit's intestine.	2
▪ Demonstration of the effect of autonomic drugs on toad's heart.	2
▪ Demonstration of the mode and site of action of an unknown drug on the heart.	2
▪ Demonstration of the site and mode of action of an unknown provided on isolated toad's.	2
▪ Effect of Drugs on uterine muscles.	2
▪ Effect of neuromuscular blockers on the isolated rectus abdominis of the toad's.	2
▪ Effect of locally instilled drugs on the rabbit's eye.	2
▪ Demonstration of the mode of action of unknown drug that produce mydriasis on topical application of rabbit's eye.	2
▪ Central Nervous System Stimulants.	2
▪ General anesthesia.	2
Total 24	
2nd Semester	
Practical Topic 2nd semester	No. of hours
▪ Drug forms.	2
▪ Prescription.	2
▪ Posology, Metrology and Medical dosage.	2
▪ Dispensing solutions.	2
▪ Dispensing lotions.	2
▪ Dispensing emulsions.	2
▪ Dispensing solutions liniments.	2
▪ Dispensing ointments.	2

▪ Dispensing bolus and electuaries.	2
▪ Dispensing powders.	2
▪ Dispensing mixtures.	2
▪ Dispensing ophthalmic preparations.	2
Total	24

. Teaching and Learning Methods:

- 4.1 Lectures and practical for every topic in the course
- 4.2 Collection of some information from textbooks.
- 4.3 Field visits (drug companies)
- 4.4 Study of pharmacological principles on isolated animal preparations as well as on intact anesthetized animals.

. Student Assessment Methods:

Exam		
5.1	Written Mid-term	To assess the ability to remember and understand
5.2	Written Final-term	To assess the ability to remember and understand
5.3	Practical Final-term	To assess professional skills
5.4	Oral Final-term	To assess skills of discussion

Assessment Schedule (in each semester):

	Exam	Week
Assessment	Written Mid-term	8 th
Assessment	Written Final-term	16 th
Assessment	Practical Final-term	16 th
Assessment	Oral Final-term	16 th

Weighing of assessments

	Exam	Per Semester (%)	Total (%)
Assessment	Written Mid-term	10	20
Assessment	Written Final-term	25	50
Assessment	Practical Final-term	10	20
Assessment	Oral Final-term	5	10
	Total	50	100

. List of References:

. Course Notes:

Lecture and Practical Notes. By staff members

. Essential Books:

- 1- Pharmacology for Veterinary Technicians. Mosby-Year Book, Ins.USA
- Veterinary Applied Pharmacology and therapeutics. Brander, G. C.; Pugh, D. M. and Bymater, R.J., English Language Book Society and Longman, London.
- Veterinary Pharmacology and Therapeutics, th Edition , edited by H.Richard Adams, Iowa State University Press/ Ames.

. Recommended Books:

Veterinary Pharmacology and Therapeutics. th Ed., th Ed.

. Periodicals, websites, etc

- J. Vet. Pharmacology and Therapeutics.
- Am. J. Vet. Res.

. Facilities Required for Teaching and Learning

- Microscope, computers, overhead projectors, mobile screens for exhibition.
- Organbaths.
- Kymograph.

Course Coordinator: Ass. Prof. Hazem Mohammed Shaheen

Head of Department: Ass. Prof. Hazem Mohammed Shaheen

Date: