



Beni-Suef University
Faculty of Veterinary Medicine

Course specification (2017-2018)

1-Basic information

| | |
|----------------------------|---|
| Course Code: | S3-PHAR |
| Course title : | Veterinary pharmacology |
| Academic year: | 3 rd Academic year |
| Program title: | B. Sc. Veterinary Medical sciences |
| Contact hours/ week | 5 hours/week, (3Lect./week, 2 Practical/week) |
| Approval Date | 2017-2018 |

2-Professional information

Overall aims of course:

By the end of this course the student is able to:

- 1-Recognize pharmacokinetics and pharmacodynamics of drugs affecting different systems of the body.
- 2- Set the side effect and toxicity of the drugs
- 3- Write correct prescription.
- 4- Formulate different drugs for treating diseased case.
- 5- Calculate the correct doses of different drugs.
- 6-Choose the correct route of drug administration.
- 7-Choose the suitable drugs for treating different diseases.
- 8-Describe different drug sources.
- 9-Perform different pharmaceutical drug forms necessary for treatment certain diseases.

3- Intended learning outcomes of course (ILOs)

A-Knowledge and understanding:

By the end of this course the student should be able to:

- a- 1-distinguish pharmacokinetics and pharmacodynamics of drugs.
- a-2- Recognize drugs affecting ANS, CNS, Reproductive system (Autacoids and reproductive Hormones), Urinary system, Respiratory system, Digestive system, Cardiovascular system, Skin and eye and Metabolism.
- a-3- Recognize Chemotherapy and Clinical pharmacology.
- a-4- Recognize Drug toxicology and Fish pharmacology.

b-Intellectual skills

By the end of this course the student should be able to:

- B-1-Formulate different prescriptions for treating diseases.
- b-2-Suggest certain drugs for treating diseased cases



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b-3-Differentiate the forms of drugs

c-Professional and practical skills

By the end of this course the student should be able to:

C-1 perform different route of administration of living laboratory animals with different drugs.

C-2-Assesse of the different chemotherapeutic agents

C-3- Design a Prescription.

C-4-Perform different pharmaceutical drug forms necessary for treatment certain diseases.

C-5-Detect the site of action of different drugs

C-6- Detect the active principles present in plants.

d-General and transferable skills

By the end of studying the course, the student should be able to:

d1- Work in a group and manage time.

d2- Connection with drug companies, pharmacists and the friends in the career.

d3- Communication with their professors and staff members.

d4-Utilize computers and internet for research work

4-Topics and contents

| Course | Topic | No. of hours | Lectures | Practical |
|---|---|--------------|-----------|-----------|
| 3rd year-First term Veterinary pharmacology (Lec. 3 h./week, Pract. 2h./week) | *General pharmacology | 22 | 8 | 14 |
| | *Drug affecting Autonomic Nervous System | 10 | 6 | 4 |
| | * Drug affecting Central Nervous System | 16 | 8 | 8 |
| | * Drug affecting Reproductive System | 2 | 2 | - |
| | * Drug affecting Skin and Eye | 3 | 3 | - |
| | * Drug affecting Urinary System | 2 | 2 | - |
| | * Drug affecting Cardiovascular System | 3 | 3 | - |
| | * Drug affecting Respiratory System | 2 | 2 | - |
| | * Drug affecting digestive system | 3 | 3 | |
| | * Drug affecting hormones | 2 | 2 | |
| | | Total | 65 | 39 |



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| | | | | |
|---|--------------------------------|-----------|-----------|-----------|
| 3 rd year-Second term Veterinary pharmacology (Lec. 3 h./week, Pract. 2h./week) | *Drugs affecting metabolism | 5 | 3 | 2 |
| | *Antibiotics | 8 | 6 | 2 |
| | *Sulfonamides | 4 | 2 | 2 |
| | *Other antimicrobials | 4 | 2 | 2 |
| | *Anthelmintic drugs | 6 | 4 | 2 |
| | *Antifungal drugs | 3 | 1 | 2 |
| | *Antiprotozoal drugs | 6 | 4 | 2 |
| | *Disinfectants and antiseptics | 14 | 2 | 12 |
| | *Antiviral drugs | 1 | 1 | - |
| | *Ant tubercular drugs | 1 | 1 | - |
| | *Antitumor drugs | 1 | 1 | - |
| * Clinical pharmacology | 4 | 4 | - | |
| *Drug toxicology | 4 | 4 | - | |
| *Fish pharmacology | 4 | 4 | - | |
| | Total | 65 | 39 | 26 |

5-Teaching and learning methods

1. Lectures
2. Practical sections.
3. Self-learning by assays and presentations.

6-Teaching and learning methods for the students with disabilities

Office hours, special meeting and practical course revision.

7-Student assessment

7.1. Assessments methods:

| Method | Matrix alignment of the measured ILOs/ Assessments methods | | | |
|--------------------|--|-------|-----------|---------|
| | K&U | I.S | P&P.S | G.S |
| written Exam | 1,2,3,4 | 1,2,3 | 1,2,4 | |
| Practical Exam | 1,2,3 | 1,2,3 | 1,3,4,5,6 | 1 |
| Oral Exam | 1,2,3,4 | 1,2,3 | 1,2,3,4 | |
| Student Activities | | | | 1,2,3,4 |

7.2. Assessment schedules/semester:

| Method | Week(s) |
|--------------------|----------------------------|
| Practical exams | 15 th week |
| written exams | managed by administrations |
| Oral Exam | managed by the department |
| Student Activities | managed by the department |



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7.3. Weight of assessments:

| Assessment | Weight of assessment |
|--------------------|----------------------|
| Practical exams | 25% |
| written exams | 50% |
| Oral Exam | %25 |
| Student Activities | - |
| | 100% |

8- List of references

8.1. Notes and books

- * Notes of pharmacology (part I and part II) by staff member.
- * Note of practical pharmacology

8.2. Essential books:

(Available in library of Faculty of Veterinary Medicine, Beni-Suef University)

***Walker, D.G.; Renwick, A.G. and Hillier, K. (2001):**

Medical pharmacology and therapeutics
First Ed. University of Southampton printed in Spain

***Mehdi Borougerdi. (2002):**

Pharmacokinetics: Principles and applications.
Dep. of Pharmaceutical Science-School of pharmacy, North Eastern Univ. Bostom.

8.3. Recommended texts

(Available in library of Faculty of Veterinary Medicine, Beni-Suef University)

***Stockly, I.H. (1999):**

Drug interactions, 5th Ed.
University of Nottingham Medical School, Nottingham, UK

***Goodman, L.S. and Gilman, A. (2001):**

The pharmacological basis of therapeutics, 10th Ed.
Iowa State University Press USA

***Nicholas H. Booth and E. Mcdonald (2005):**

Jones Veterinary Pharmacology and Therapeutics, 5th Ed, Pharmaceutical press publisher

***Robert L. Bill (2006):**

Clinical Pharmacology and Therapeutics For The Veterinary Technician, 3rd Ed. Vet.
Physiology and pharmacology. School of Vet. Medicine. Purdue Univ. Indiana



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***S. Giguere. J. F. (2006):**

Antimicrobial therapy in Veterinary Medicine, 4th ed.
Black well publishing

***Bertram. G. (2007):**

Basic and clinical pharmacology. 10th .ed.
Dep. of cellular and molecular pharmacology. Unv. of california, San Francisco.

8.4. Journals, Websitesetc

Journals:

- *Journal of Pharmaceutical Science
- *Journal of Veterinary Pharmacology and Therapeutics
- *Antimicrobial Agents and Chemotherapy
- *British Journal of Pharmacology
- *The Pharmacological Basis of Therapeutics
- *Journal of Antimicrobial Chemotherapy
- *Journal of Antibiotics

Websites:

[http//www.sciencedirect.com/scince](http://www.sciencedirect.com/scince)

ncbi.nlm.nih.gov/entrez/query.fcgi

Course Coordinators

Dr. Abeer Mohammed Radi

Head of Department

Prof. Dr. Mohammed AbdAlla Tohamy



Course specification

| Topic | Week | Intended learning outcomes of course (ILOs) | | | |
|---|---------|---|---------|-----------|-----------|
| | | K&U (a) | I.S (b) | P.P.S (c) | G.T.S (d) |
| First term | | | | | |
| *General pharmacology | 1,2,3 | 1 | | 1,6 | 1,3,4 |
| *Drug affecting Autonomic Nervous System. | 3,4,5 | 2 | 1,2,3 | 5 | 1,3,4 |
| * Drug affecting Central N.Sys. | 5,6,7,8 | 2 | 1,2,3 | 5 | 1,3,4 |
| * Drug affecting Reproductive Sys. | 8 | 2 | 1,2,3 | | 1,3,4 |
| * Drug affecting Skin and Eye | 9 | 2 | 1,2,3 | 4 | 1,3,4 |
| * Drug affecting Urinary System. | 10 | 2 | 1,2,3 | | 1,3,4 |
| * Drug affecting Cardiovascular System. | 10,11 | 2 | 1,2,3 | | 1,3,4 |
| * Drug affecting Respiratory System. | 11,12 | 2 | 1,2,3 | 4 | 1,3,4 |
| * Drug affecting digestive system | 12,13 | 2 | 1,2,3 | 4 | 1,3,4 |
| * Drug affecting hormones | 13 | 2 | 1,2,3 | | 1,3,4 |
| Second term | | | | | |
| *Antibiotics | 1,2 | 3 | 1,2,3 | 2 | 1,3,4 |
| *Sulfonamides | 3 | 3 | 1,2,3 | 2 | 1,3,4 |
| *Other antimicrobials | 3,4 | 3 | 1,2,3 | 2 | 1,3,4 |
| *Anthelmintic drugs | 4,5 | 3 | 1,2,3 | 2 | 1,3,4 |
| *Antifungal drugs | 5 | 3 | 1,2,3 | 2 | 1,3,4 |
| *Antiprotozoal drugs | 6,7 | 3 | 1,2,3 | 2 | 1,3,4 |
| *Drug affecting metabolism | 7,8 | 3 | 1,2,3 | 2 | 1,3,4 |
| *Disinfectants and antiseptics | 8 | 3 | 1,2,3 | 2 | 1,3,4 |
| *Antiviral drugs | 9 | 3 | 1,2,3 | 2 | 1,3,4 |
| *Antitubercular drugs | 9 | 3 | 1,2,3 | 2 | 1,3,4 |



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| | | | | | |
|--------------------------------|-------|---|-------|-----|-------|
| *Antitumor drugs | 9 | 3 | 1,2,3 | 2 | 1,3,4 |
| * Clinical pharmacology | 10,11 | 3 | 1,2 | 3,4 | 1,2,3 |
| *Drug toxicology | 11,12 | 4 | 1,2 | | 1,2,3 |
| *Fish pharmacology | 12,13 | 4 | 1,2 | | 1,3,4 |



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