



# Pharmacology Curriculum Content And Logbook (1<sup>st</sup> Term)

Student's Name:

Section:

Mansoura university  
Faculty of veterinary  
medicine  
Pharmacology Department



جامعة المنصورة  
كلية الطب البيطري  
قسم الادوية

### Personal Data

Student's name:.....

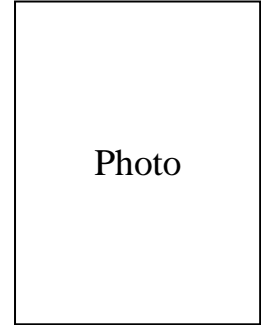
Adress:.....

Telephone No:.....

E-mail:.....

Serial No:.....

Attended Ratio:.....



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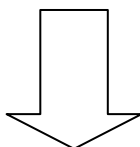
# Cerriculum content



## Pharmacology Course

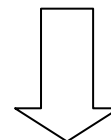
- Theoretical Topics (Lectures): 3 hours \ week.
- Practical Course: 2 hour \ week.

### Academic Teaching Materials



General Pharmacology  
Urinary system  
Drug affect Autonomic  
nervous system  
Drug affect Central nervous  
system  
Autacoids  
Skin  
Anti-inflammatory drugs  
Drug affecting respiratory  
system

### Practical Course



\* Drug sources  
\* Drug forms  
\* Routes of drug administration  
\* Effect of drug on isolated tissue  
preparation  
\* Effect of drug on CNS  
\* Action of drug on isolated skeletal  
muscle  
\* Effect of general anaesthesia on rat  
\* Action of drug on isolated uterus  
\* Action of drugs on rabbit eye  
\* Effect of drugs on isolated rabbit  
duodenum  
\* Site of drug actions on isolated  
rabbit duodenum



## Intended learning outcomes of course

### **Knowledge and understanding.**

1. Define what is the drug and how it work.
2. Recognize the word pharmacodynamics and pharmacokinetics.
3. Identify the adverse effects of commonly used drug groups, and their management.
4. Identify general mechanisms of drug action.
5. Describe the word receptor and how the drug act on it.
6. Recognize drug interaction and contraindications of drugs in order to avoid harm to patients.
7. Describe species variations in pharmacodynamic activity or pharmacokinetic behavior that contribute to differences in drug dosage requirement.

### **Intellectual Skills**

1. Distinguish the different units which help weight and measure ingredients.
2. Compare the dose of the drug in different animals.
3. Choose the proper drugs in proper dosage based on patient's age, weight and species.
4. Monitor the effectiveness and side effects of therapy.
5. Proficiently and develop problem lists and diagnosis in order to reach the most appropriate solution(s) of drug residues in animal products.



## **Professional and practical skills**

1. Employ all the gained knowledge and understanding in clinical practice in a skillful pattern.
2. Preparation many drug formula used in treatment of many cases .
3. Identify different routes of drug administration.
4. Estimate therapeutic effect of the drug .
5. Show different method to, analyze the drug residues.
6. Illustrate the word Bioavailability of the drug.
7. Show different drug sources as herpes and medicinal plants which have many therapeutic effect.

## **General and Transferable Skills.**

1. Work under pressure and / or conditional conditions.
2. Function in multidisciplinary team.
3. Communicate appropriately verbally and nonverbally.
4. Organize and control tasks and resources.
5. Search for new information and technology as well as adopt life-long self – learning ethics.



Week 1

Date:.....

1-Where do drug come from.

2- Natural source of drugs(Animal-Micro-organism-Mineral-Plant).

3-Classification of active principle of plants according to their physico-chemical properties.

4-synthetic source of drugs

Meicinal plants as a source of drug

Samples	Depict(Draw)	Remaks	Signature

Assesment Questions:

Discuss briefly different sources of drugs?







Liquid form

samples	Depict(draw)	Remarks	Signature

Assesment Questions:

Infusion can be defined as ..... While decoction is.....

The vehicle in pessaries is .....while in suppository is.....

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Week 3

Date

Routes of drug administration:

Assessment question:

Mention advantage and disadvantage of oral administration of drug

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Week 4

Date:.....

Effect of drug on isolated tissue preparation

Assessment Question:

Illustrate with drawing Glass Jar apparatus



Week 5

Date:.....

Effect of drug on Central nervous system

- 1-Classification of CNS stimulant drug and their mechanism of action.
- 2- Types of convulsion result from toxicity of CNS stimulant drugs.
- 3- Treatment of strychnine toxicity

### 1-Cerebral cortex stimulant drug

procedure	Observation	Result & conclusion
Inject 0.5ml Caffeine solution (10%) in the dorsal lymph sac of frog and wait for 3-5 minutes.	Spontaneous , coordinated, symmetrical convulsion	Epileptic convulsion
<u>Pithing:by</u> introducing the needle into the cranial cavity(to destroythe brain and the medulla)	.....	Conclusion
Pith th spinal cord__	⇒	
Pith the medulla	⇒	
Pith cerebral cortex	⇒	



## 2- Medullary stimulant drug

Procedure	Observation	Result & conclusion
<p>Inject 0.5 ml Picrotoxin solution (10%) into the dorsal lymph sac of a frog and wait for 3-5 minutes</p> <p>Pithing:</p> <p>Pith the spinal cord Pith cerebral cortex Pith the medulla</p>	<p>Spontaneous ,coordinated, asymmetrical convulsions</p>	<p>Result Clonic convulsion ..... <u>Conclusion</u></p>

## 3- Spinal cord stimulant drug

Procedure	observation	Result&conclusion
<p>Inject 0.5 ml strychnine solution (1/1000) into the dorsal lymph sac of a frog</p> <p>Pithing:</p> <p>Pith cerebral cortex Pith the medulla Pith the spinal cord</p>	<p>Reflex, non coordinated , symmetrical convulsions</p>	<p>Result Tonic convulsion</p>

### Assessment Question:

Mention mechanism of action of Xanthines- picrotoxin-strychnine

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Week 6:

Date:.....

Action of drug on skeletal muscle(frog rectus abdominus)

Identify dose response relationship



Week 7:

Date:.....

Action of General anesthetic on rats

Stage of anaesthesia	Duration(min)	
	Ether	Chloroform
1-Analgesia		
2-Excitation		
3- surgical anesthesia		
4- Medullary paralysis		
Recovery		

Assesment Question:

Compare between ether and chloroform?

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Week 7

Date:.....

Action of drug on isolated uterus

Study the effect of drugs( oxytocin) on uterine tone and motility.

Curve showing effect of drug on uterus



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Week 8

Date:.....

Action of drug on isolated intestine and detection site of action of unknown drugs.



Week9

Date:.....

Action of drugs on rabbit eye

Parameter	Normal	Physostigmine	Atropine
1- Pupil size			
2- tears			
3- color of m.m			

Assesment Question:

compare between passive and active mydriasis?

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## Student Activity

The Type of student activity:.....

The topic of the Activity:.....

Supervisor of the activity:.....

Date	Signature



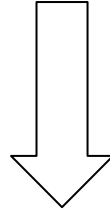
## Student Assessment Methods

1. Final Written exam.
2. Oral exam (Viva Card Method).
3. Practical Exam
4. Attendance criteria: The minimum acceptable attendance is 75%
5. Formative assessment
  - a. Test after each chapter .
  - b. Log book and practical book.
  - c. Students activities (Presentation & Essays)

Assassments	Assessment	Weight	Degree
Assessment 1	Practical Exam	30%	15
Assessment2	Oral Exam	20%	10
Assessmenta3	Final Written Exam	50%	25
Total		100%	50



Summative  
Assessment



Assessment	Mark	Signature
Practical Exam		
Oral Exam		
Final written exam		