



COURSE SPECIFICATION

Faculty of Medicine– Mansoura University

(A) Administrative information

(1) Programme offering the course.	Ph.D degree of clinical pharmacology
(2) Department offering the programme.	Clinical pharmacology department
(3) Department responsible for teaching the course.	Clinical pharmacology department
(4) Part of the programme.	First part
(5) Date of approval by the Department's council	10/7/2016
(6) Date of last approval of programme specification by Faculty council	9-8-2016
(7) Course title.	General pharmacology
(8) Course code.	CPHARM 606 GP
(9) Total teaching hours.	60
(10) Credit hours	4

(B) Professional information

(1) **Course Aims.**

The broad aims of the course are:

- 1- Understand and apply principles of pharmacokinetics/pharmacodynamics to optimise drug administration and predict adverse drug and drug-drug interactions.

(2) Intended Learning Outcomes (ILOs):

On successful completion of the course, the candidate will be able to.

A- Knowledge and Understanding

1. Describe theories of drug-receptor interactions and the related concepts of agonists and antagonists.
2. Understand principles of pharmacodynamic studies and dose response relationships.
3. Recall factors affecting rate of absorption and metabolism of drugs.
4. Define bioavailability, half life, AUC, volume of distribution and clearance.
5. Review mechanisms underlying drug adverse effects and drug-drug interactions.
6. Define Pharmacogenetics with examples.
7. Discuss drug abuse and over the counter drugs (OTC)
8. Study changes in drug dynamics, kinetics in vulnerable patients (geriatrics, pediatrics and Pregnancy).
9. Explain phases of drug development.
10. Detail how to write a prescription.

B- Intellectual skills

1. Interpret pharmacokinetic data of a drug; bioavailability, Half life, Volume of distribution and Clearance.
2. Anticipate adverse drug reaction based on available kinetic and dynamic data.
3. Anticipate and avoid drug-drug interactions, including interaction with complementary medicines.
4. Use therapeutic drug monitoring to make appropriate dose adjustments.
5. Prescribe safely in pediatrics, geriatrics & pregnancy
6. Make appropriate pharmacotherapy plan for drug dependence

(3) Course content:

Subjects	Lectures	Laboratory
Drug transport	4	-
Drug receptors	4	-
Pharmacodynamics	4	-
Pharmacokinetics (absorption and distribution)	4	-
Pharmacokinetics (metabolism and elimination)	4	-
Adverse reactions & pharmacogenetics	4	-
Drug interactions	8	-
Drugs and geriatrics	4	-
Drugs and pediatrics	4	-
Drugs and pregnancy	4	-
Drugs and diseases	4	-
Development and regulation of drugs	4	-
Principles of prescription writing	4	-
Drug abuse and over the counter drugs (OTC)	4	
Total teaching hours:	60	-

(4) Teaching methods:

4.1: Lectures

(5) Assessment methods:

5.1. - **Written exam** for assessment of knowledge & intellectual ILOs.

5.2. **MCQ exam** at the end of the semester for assessment of knowledge & intellectual ILOs.

Assessment schedule:

الدرجة	الاختبار		المقرر
نظري			
١٠٠	٨٠	اختبار تحريري مدته ثلاث ساعات	الفارماكولوجيا العامة
	٢٠	اختبار MCQ	

(6) References of the course:

6.1. Text books:

- Pharmacology and therapeutics (Goodman) [Last edition].
- Basic and clinical pharmacology (Katzung) [Last edition].
- Pharmacology (Rang and Dale) [last edition].

6.2. Journals:

- Pharmacological reviews, etc

(7) Facilities and resources mandatory for course completion.

- Computer labs with open access to medical research databases
- Upgraded library
- Induction course introducing study skills.
- Candidate's logbook.
- Internet with a wide range of learning support material.

Course coordinators:

- Prof. Dr. Hussein Mahmoud El Beltagy
- Prof. Dr. Ali Gaballa
- Prof. Dr. Mohamed-Hesham Daba
- Lecturer. Mohamed abo el kheir

Head of the department:

Prof. Dr. Hussein Mahmoud El Beltagy