



COURSE SPECIFICATION

Faculty of Medicine– Mansoura University

(A) Administrative information

(1) Programme offering the course.	PhD 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.	Second 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.	Clinical pharmacology
(8) Course code.	CPHARM 606 CP CPHARM 606 CPP
(9) Total teaching hours.	390
(10) Credit hours.	12 h lectures 7 h practical

(B) Professional information

(1) Course Aims:

The broad aims of the course are:

- 1-** Acquire knowledge and skills aiming for rational & cost effective drug use and therefore, clinical effectiveness at all times.
- 2-** Understand basics of evidence based therapy, lifestyle drugs and sport medicine.

(2) Intended Learning Outcomes (ILOs):

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

A- Knowledge and Understanding

- 1-** Detail latest guidelines in management of major cardiovascular diseases, including heart failure, ischemic heart disease, arrhythmia, shock , and thromboembolic states.
- 2-** Discuss available drugs to manage neurological disorders, including epilepsy and neurodegenerative diseases.
- 3-** Describe advances in therapeutic management of pain
- 4-** Outline lines of treatment of common urinary diseases and erectile dysfunction.
- 5-** Summarize lines for therapeutic management of diabetes mellitus.
- 6-** Example the best antimicrobial options to treat bone, CNS, respiratory tract, GIT, genitourinary infections, including infections in immunocompromised patients.
- 7-** Recognize latest therapeutic options for treating common viral, parasitic and fungal infections.
- 8-** Discuss the general lines of cancer management, focusing on new trends in pharmacotherapy of cancer breast, lymphoma and leukemia.
- 9-** Recall major immunosuppressive drugs used in management of common autoimmune disorders.
- 10-** Discuss how drugs can adversely affect liver, kidney and skin.
- 11-** List general strategies for management of poisoned patients
- 12-** Outline basics of evidence based therapy, lifestyle drugs and sport medicine.

B– Intellectual skills

1. Evaluate guidelines for management of common medical disorders and develop prescribing policies.
2. Anticipate drug induced liver, kidney and skin diseases
3. Explain causes of failure of medical therapy, including mechanisms of bacterial and cancer resistance.
4. Interpret electronic databases such as Medline, Embase and Cochrane
5. Critically evaluate relevant scientific literature.

C– Professional/practical skills

- 1- Apply latest clinical guidelines in case scenarios of common CVS, CNS, GIT, genitourinary and metabolic disorders.
- 2- Handle case scenarios of bone, CNS, respiratory, GIT, genitourinary infections.
- 3- Construct a therapeutic plan for treatment of cancer breast, lymphoma and leukemia.
- 4- Prescribe appropriately in different pathological (hepatic & renal patients) and physiological (pregnancy & breast feeding) conditions.
- 5- Manage case scenarios of drug toxicity and acid base disorders.
- 6- Design and conduct clinical trials of approved drugs on humans to detect toxicity, drug drug interaction & unapproved effects.
- 7- Improve drug safety, using Information Technology prescribing tools.
- 8- Respond appropriately with updated therapeutic alerts.

D- Communication & Transferable skills

1. Show willingness to act as a leader, mentor, educator and role model.
2. Work in partnership with patients and members of the wider healthcare team.
3. Respond appropriately to unprofessional behavior of others.
4. Maintain honesty and objectivity during appraisal and assessment.
5. Respond to evidence-based medicine, aiming for clinical effectiveness at all times.
6. Demonstrate effective lecture, presentation, and small group teaching sessions.
7. Ensure appropriate personal language and behavior.

(3) Course content:

(Clinical pharmacology Module 1)

(3+1)

Topics	Lectures	Seminars
New trends in pharmacotherapy of ischemic heart disease	1	1
New trends in pharmacotherapy of heart failure	2	
New trends in pharmacotherapy of arrhythmia	3	1
New trends in pharmacotherapy of pulmonary hypertension	2	1
Pharmacotherapy of shock and cardiopulmonary arrest	1	
Management of pain	3	1
New trends in pharmacotherapy of epilepsy	3	1
New trends in pharmacotherapy of parkinsonism	2	1
New trends in pharmacotherapy of Alzheimer	1	
New trends in pharmacotherapy of stroke	3	1
Pharmacotherapy of multiple sclerosis	3	1
Pharmacotherapy of acute renal failure	1	1
Pharmacotherapy of chronic kidney disease	2	
New trends in pharmacotherapy of erectile dysfunction	2	1
Pharmacotherapy of urinary incontinence	1	
New trends in pharmacotherapy of headache	3	1
Drug dosing in renal insufficiency	3	1
Pharmacotherapy of venous thromboembolism	3	1
Pharmacotherapy of pulmonary embolism	3	1
Pharmacotherapy of hyperlipidemia	3	1
Total teaching hours:	45	15
	60 hours	

(Clinical pharmacology Module 2)

(3+1)

Topics	lectures	Seminars
Metabolic syndrome	2	
Diabetes mellitus	1	1
Contraception	3	1
Respiratory tract infections	2	
GIT infections	1	1
Parasitic diseases	3	1
Osteomyelitis	1	
Meningitis	1	1
Endocarditis	1	
Sexual transmitted infections	3	1
AIDS	3	1
Viral hepatitis	3	1
Superficial & invasive fungal infections	3	1
Medical & surgical antimicrobial prophylaxis	3	1
Infections in immunocompromised patients	3	1
General management of Cancer	3	1
Cancer breast	3	1
Lymphoma	3	1
Leukaemia	3	1
Total teaching hours:	45	15
	60 hours	

(Clinical pharmacology Module 3)

(3+1)

Topics	lectures	Seminars
Evidence based medicine	3	1
Regenerative medicine & stem cell medicine	3	1
Irritable bowel syndrome	1	1
Inflammatory bowel disease	2	
Perscribing in hepatic patients	2	1
Drug induced liver diseases	2	
Prescribing in renal patients	2	1
Acid base disorders	3	1
Management of poisoned patients	2	1
Alcohol toxicity	3	1
Rheumatoid arthritis and osteoarthritis	3	1
Systemic lupus	3	1
NASH and NAFLD	2	1
Peptic ulcer and upper GIT bleeding	2	
Psoriasis and acne	3	1
Drug induced skin disease	3	1
Parenteral nutrition	3	1
Life style drugs & drugs in sport	3	1
Total teaching hours:	45	15
	60 hours	

Practical

Topics	Case scenario
Ischemic heart disease Heart failure Arrhythmia	14
Pulmonary hypertension Shock and cardiopulmonary arrest	7
Chronic pain and Headache Epilepsy Parkinsonism Alzheimer Cerebral stroke Multiple sclerosis	21
Acute and Chronic renal failure Drug dosing in renal insufficiency Urinary incontinence	14
Erectile dysfunction Venous thromboembolism Pulmonary embolism	14
Hyperlipidemia Metabolic syndrome Diabetes mellitus	21
Contraception	7
Respiratory tract infections GIT infections Parasitic diseases Osteomyelitis Meningitis	28

Endocarditis	
Sexual transmitted infections AIDS Viral hepatitis Superficial & invasive fungal infections Medical & surgical antimicrobial prophylaxis Infections in immunocompromised patients	28
Cancer breast Lymphoma Leukaemia	14
Peptic ulcer and upper GIT bleeding Irritable bowel syndrome Inflammatory bowel disease NASH and NAFLD	14
Management of poisoned patients Alcohol toxicity	7
Rheumatoid arthritis and osteoarthritis Systemic lupus Psoriasis and acne	7
Drug induced Renal disease Prescribing in hepatic patients Drug induced liver diseases Drug induced skin disease	14
Total teaching hours:	210

(4) Teaching methods:

- 4.1: Lectures
- 4.2: Seminars
- 4.3: Field training

(5) Assessment methods:

5.1. – **MCQ exam** at the end of each semester for assessment of knowledge & intellectual ILOs.

5.2. - **written exam** for assessment of knowledge & intellectual ILOs. 5.3 -

5.3. **Oral examinations** for assessment of knowledge, intellectual & communication ILOs

5.4 **OSPE** for assessment of practical & communication ILOs

Assessment schedule.

إجمالي	الدرجة			الاختبار	المقرر
	عملي	شفهي	تحريري		
٢٠٠	٥٠	٥٠	نظري	إختبار تحريري مدته ثلاث ساعات + إختبار شفهي + إختبار عملي	لفارماكولوجيا الاكلينيكية
			MCQ		
			٢٠	٨٠	

(6) References of the course.

6.1: Text books:

Pharmacology and therapeutics (Goodman) [Last edition].

Pharmacotherapy (A pathophysiologic approach) seventh edition

Pharmacotherapy principles & practice (2nd 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. Hussien M. El-Beltagi
- Prof. Dr. Ali Gaballa
- Prof. Dr. Mohamad-Hesham Daba
- Dr. Mohamed Aboelkheir Abdallah
- Assistant lecturer. Nehal Ramadan

Head of the department.

Prof. Dr. Hussien M. El-Beltagi