



*Benha University.*  
*Faculty of Medicine.*  
*Department of Clinical Pharmacology*

## **COURSE SPECIFICATIONS**

Course title: Clinical Pharmacology  
 Code: MED 0706

**Academic Year (2010-2011)**

- Department offering the course: Clinical Pharmacology Department
- Academic year of M.B. & B.Ch. program: 3<sup>rd</sup> year (2010-2011).
- Date of specification approval:
  - Dep. Council No....., date.....
  - Fac. Council No....., date.....

### **A) Basic information:**

- Allocated marks: 300 marks
- Course duration: 30 weeks of teaching.
- Teaching hours: 7.7hours/week= 230 total teaching hours.

	Hours/week	Total hours
1- Lectures	5 hrs/week for 30 weeks	150 hrs
2- Small group teaching / tutorials	.....	.....
3- Practical	4 hrs/ week for 20 weeks	80 hrs
<b>Total</b>	<b>30 weeks</b>	<b>230 hrs</b>

## **B- Professional Information**

### **1- Overall aims of course**

- 1.1. To provide the basic knowledge about commonly used groups of drugs affecting different body systems.
- 1.2. To provide drugs implications in therapy of diseases and health promotion.
- 1.3. To enable students to understand the safe use of drugs as regards adverse effects, contraindications and drug interactions.

### **2- Intended learning outcomes of course (ILOs)**

#### **2.1- Knowledge and understanding:**

*By the end of the course, students should be able to:*

- 2.1.1. Describe the indications, the relative advantages and disadvantages of various therapeutic modalities (Pharmacological and non pharmacological) for common and life threatening illnesses.
- 2.1.2. Identify proper methods intervention for common and life threatening illnesses (whether non invasive and or, invasive).
- 2.1.3. Identify the basics for pre- and post operative cer.
- 2.1.4. Recognize methods for pain relief to ameliorate patients sufferings.

#### **2.2. Practical skills**

**By the end of the course, students should be able to:**

- 2.2.1. Perform with precision different technique of drug administration.
- 2.2.2. Design rational therapeutic strategies for both acute and chronic conditions that take into account the various variables that influence these strategies. Choose the proper drug(s) for the proper clinical situation in proper dosage.
- 2.2.3. Write a prescription for selected important diseases.
- 2.2.4. Audit prescriptions citing multiple drugs.
- 2.2.5. Demonstrate the macroscopic and microscopic criteria of the altered structures and functions of the body and its major organ systems that are seen in various diseases and conditions.

**2.3. Professional Attitude and Behavioral skills:**

**By the end of the course, students should be able to:**

- 2.3.1. Demonstrate respect and work effectively as a member or a leader of an interdisciplinary team.
- 2.3.2. Establish good relations with colleagues to share all types of inter- professional activities including shared learning.

**2.4. Communication skills:**

**By the end of the course, students should be able to:**

- 2.4.1. Communicate clearly, sensitively and effectively with colleagues from a variety of health and social care professions.
- 2.4.2. Establish good relations with other health care professionals regardless their degrees or rank (top management, subordinate or colleague).
- 2.4.3. Communicate effectively with individuals regardless of their social, cultural, ethnic backgrounds, or their disabilities.
- 2.4.4. Cope up with difficult situations as breaking news.
- 2.4.5. Respect superiors, colleagues and all members of the health profession.

**2.5. Intellectual skills**

**By the end of the course, students should be able to:**

- 2.5.1. Calculate accurately drug's dosage, bioavailability, plasma half life and volume of distribution in different patient populations.
- 2.5.2. Obtain and record a comprehensive drug history of the patient.
- 2.5.3. Document drug adverse reactions.
- 2.5.4. Adopt the questioning approach to own work & that of others to solve clinical problems.

**2.6. General and transferable skills**

- 2.6.1. Establish life- long self- learning required for continuous professional development.
- 2.6.2. Use the sources of biomedical information and communication technology to remain current with advances in knowledge and practice.
- 2.6.3. Retrieve, manage, and manipulate information by all means, including electronic means.

- 2.6.4. Present information clearly in written, electronic and oral forms.
- 2.6.5. Establish effective interpersonal relationship to Communicate ideas and arguments.
- 2.6.6. Work effectively as a member or a leader of an interdisciplinary team.
- 2.6.7. Apply the principles of statistical methods for collection, presentation & analysis of all types of data.

### 3- Course contents

Topics	Lectures	Tutorial/ small group	practical	Total	% total
1-General pharmacology	11		6	17	
2-Autonomic nervous system	20		12	32	
3-Ocular pharmacology	2		4	6	
4-Skeletal muscle relaxants	2		4	6	
5-Autacoids	4		-	4	
6-Respiration	5		2	7	
7-Renal pharmacology	4		-	4	
8-Cardio-vascular pharmacology	20		12	32	
9-Blood and blood forming organs	6		-	6	
10-Psycho-neuro- pharmacology	20		4	24	
11-Hormones and their antagonists	6		4	10	
12-Gastro-intestinal tract	6		2	8	
13-Chemotherapy and local antiseptics	6		4	10	
14-Drug abuse	2		-	2	
15-Drug interactions	2		-	2	
16-Chelating agent	2		4	6	
17-Vitamins and food supplements	2		-	2	
18- Immunopharmacology	2		-	2	
19- Pharmaco-economics	2		2	4	
20- Pharmacogenetics	1		-	1	

21- Cancer chemotherapy	6		-	6	
22- Gene therapy	6		-	6	
23- Iatrogenic disease	6		-	6	
24 -Prescription writing	-		4	4	
25- Choice of proper drug	-		4	4	
26- Problem based solving	-		12	12	
Total	150		80	230	

#### **4- Teaching and learning methods**

##### **METHODS USED:**

- 4.1 – Lectures
- 4.2- Practical modules
- 4.3- Clinical modules

##### **TEACHING PLAIN:**

Lectures: 150 lectures.

Tutorials: .....

Practical classes: 80 practical classes.

##### **TIME PLAIN:**

Item	Time schedule	Teaching hours	Total hours
Lectures	5 times/ weeks one hour each Between to		150
Practical classes	4 hours/ week		80
Tutorials	.....		
Total			230

#### **5- Student Assessment Methods**

##### **5.A) Attendance Criteria:**

- 1. Practical attendance.
- 2. Log book.

**5.B) Assessment Tools:**

<b>Tool</b>	<b>Purpose (ILOS)</b>
Written examination	To assess knowledge acquisition, including MCQs and problem solving.
Oral examination	To assess understanding and stability of knowledge given, attitude and presentation.
Practical examination	To assess practical skills.

**5.C) TIME SCHEDULE:**

<b>Exam</b>	<b>Week</b>
1- Assessment 1	Week ..... 7
2- Assessment 2	Week ..... 22
3- Final exam	.....

**5-D) Weighting system:**

<b>Examination</b>	<b>Marks allocated</b>	<b>% of total Marks</b>
1- Mild- year exam	45	15%
2- Final Examination		80%
a- Written	150	50%
b- Practical	60	20%
c- Oral	30	10%
3- Assignments & Other activities	15	5%
Total	300	100%

**Formative Assessment:**

- Student knows his marks after the formative exams.

**5-E) Examination description:**

<b>Examination</b>	<b>Description</b>
1- Mid -year exam	Quiz (MCQ)- short essay
2- Final exam a- Written b- Practical c- Oral	(MCQs) –short & long essay problem solving cases & Experimental models 2 sessions
3- Assignments & other activities	Assignments & practical books

**6- List of References**

6.1 Handouts updated administered by staff members

6.2 Essential Books (Text Books):

Principles of pharmacology (2005): the pathophysiologic basis of drug [et al.], Philadelphia : Lippincott Williams & Wilkins.

6.3- Recommended Books:

GOODMAN AND OILMAN(2005): THE PHARMACOLOGICAL BASIS OF THERAPEUTICS 11<sup>th</sup> edition.

6.4- web Sites:

[www.micromedex.com](http://www.micromedex.com)

**7- Facilities Required for Teaching and Learning**

- Lecture rooms:
- Laboratories
- Section rooms
- Audio-visual teaching equipments (Computer, Projector, Video .....etc)
- Models and mannequins
- Video tapes, scientific pictures archives.

**Course Coordinator:**

**Head of Department: Prof. Dr. Mohaned Mohammed Ibrahim Shehab**

**Date : 2010-2011.**