



**Faculty of Medicine  
Quality Assurance Unit**



**Assiut University  
Faculty of Medicine**

---

# **Pharmacology**

# **Course Specifications**

**010 code: AMED**

**Third year of M.B.B.Ch Program  
2016-2017**



**Faculty of Medicine  
Quality Assurance Unit**



**Assiut University  
Faculty of Medicine**

# Pharmacology

**University:** Assiut

**Faculty:** Medicine

**Department:** Medical Pharmacology

## **11- basic course information**

**Course title:** Pharmacology

**Code:** AMED 010

**Academic year / Level:** Third year

**Programme(s) on which the course is given:** M.B.B.Ch. program

**Department offering the course:** Department of Medical Pharmacology

**Lecture:** 120 hours

**Tutorial/ Practical:** 60 hours

**Total:** 180 hours

**External evaluator:**

**Hassan Helaly** Professor of Pharmacology, Faculty of Medicine, El-Azher University.

**Date of specification approval:** 10/2016

**Date of specification updated:** 10-2016

## **2- Overall aims**

- To provide the basic knowledge about commonly used groups of drugs affecting different body systems and their implications in therapy of disease and health promotion.
- To enable students to understand the safe use of drugs, as regards adverse effects, contraindications, and drug interactions
- To enable students to predict the risk/benefit ratio as a base to initiate, discontinue or avoid drug administration.



**Faculty of Medicine  
Quality Assurance Unit**



**Assiut University  
Faculty of Medicine**

### **3- Intended learning outcomes (ILOs)**

#### **A- Knowledge and understanding**

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

- A1- Describe the pharmacokinetic, pharmacodynamic and pharmacotherapeutic properties of different groups of drugs affecting body systems
- A2- Mention the adverse and toxic effects of commonly used drug groups, and their management
- A3- Mention limitations to the use of drugs such as contraindications and drug interactions
- A4- Define clinically relevant age, sex and genetic related variations that affect response to drugs
- A5- Describe the mechanism of action of drugs with regard pathophysiology of common diseases and explain the rational basis for proper choice of drugs in treating them
- A6- Mention the impact of preventive pharmacology in promoting health and prevention of illness
- A7- Define the principles, the indications, the relative advantages and disadvantages of various pharmacotherapy modalities
- A8- Describe the use of life-saving drugs
- A9- Mention the role, prevalence and limitations of alternative and complementary therapies commonly in use
- A10- Mention the rational and general guidelines of the use of drugs in the proper dose in special population such as pediatrics, geriatrics, pregnancy and lactation and in cases of liver and/or kidney impairment
- A11- Mention the pharmacological principles of treatment using drugs, their efficacy in the management and symptomatic relief of diseases and their adverse effects
- A12- Mention the relative risks and benefits of commonly used drugs.
- A13- Mention the drugs that relieve pain and ameliorate the suffering of patients



**Faculty of Medicine  
Quality Assurance Unit**



**Assiut University  
Faculty of Medicine**

### **B- Intellectual skills**

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

B1- Use computer programmed clinical cases to solve clinical problems

B2- Design rational therapeutic strategies for both acute and chronic diseases and take into account the various variables that influence these strategies. Choose the proper drug/s for the proper clinical situation in the proper dosage.

### **C-Professional and practical skills**

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

C1- Be able to calculate accurately drug's dosage, bioavailability, plasma half life and volume of distribution in different patient populations

C2- Monitor the effectiveness and toxicity of therapy in laboratory animals

C3- Observe and record the effect of drugs on biological tissues.

C4- Perform different techniques of drug administration.

C5. Predict drug adverse reactions

C6- Recommend a prescription for selected important diseases .

### **D- General skills**

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

D1- Follow the life-long self-learning and show a strong commitment to it.

D2- Follow the current I.T. for appropriate drug database to reach information about a specific medication.

D3- Handling animals



#### 4- Course contents

Topic	No. of Hours	Lecture	Practical/Tutorial
Introduction and general pharmacology	21	15	6
Introduction to A.N.S.	1	1	-
Cholinergic and anticholinergic drugs	5	5	-
Adrenergic and antiadrenergic drugs	7	7	-
Prescription writing	6	-	6
Autacoids	5	5	-
Cardiovascular system	35	15	20
Central nervous system	21	19	2
NSAID	3	3	-
Treatment of gout	2	2	-
Blood	4	4	-
GIT	13	4	9
Respiration	3	3	-
(Chemotherapy) Antibacterial	13	13	-
Antifungal	1	1	-
Antiviral	1	1	-
Cancer	3	3	-
Immunosuppressant	2	2	-
Antimalarial	1	1	-
Antiamebic	1	1	-
Anthelmintics	1	1	-
Hormones	23	14	9
Drug samples	8	-	8
<b>Total</b>	<b>180</b>	<b>120</b>	<b>60</b>

#### 5- Teaching and learning Methods

- 1- Lectures
- 2- Laboratory sessions (Practical training)
- 3- Problem solving (case studies) sessions
- 4- E-Learning system interactive discussions.



**Faculty of Medicine  
Quality Assurance Unit**



**Assiut University  
Faculty of Medicine**

### **Facilities required for teaching and learning**

- 1-Overhead projectors
- 2- Computers and Data show
- 3- TVs and Videos
- 4- E-Learning

### **6- Teaching and learning Methods for students with learning**

#### **difficulties:**

- 1- Lectures
- 2- Laboratory sessions (Practical training)
- 3- Problem solving (case study) sessions
- 4-. Special classes outside the teaching schedule

### **7- Student assessment**

#### **A- Methods**

- 1- Mid-term exam (MCQs, case studies) to assess knowledge, understanding and intellectual skills (a1-a13, b1-b2)
- 2-Final Practical exam to assess practical and intellectual skills (c1-c6. b1-b2)
- 3- Final written exam(MCQs,true and false,Matching,short essay) to assess knowledge & understanding and intellectual skills (a1-a13, b1-b2)
- 4- Final oral exam to assess knowledge & understanding, intellectual and general skills (a1- a13, b1-2, d1-d3)

#### **B- Assessment schedule**

##### **Quiz tests : 2 quiz exams each term**

**Assessment 1:** Mid term examination by the end of the 17th week

**Assessment 2:** Final Practical examination by the end of the 30th week

**Assessment 3:** Final written examination by the end of the 33rd week

**Assessment 4:** Final oral examination by the end of the 33rd week



**Faculty of Medicine  
Quality Assurance Unit**



**Assiut University  
Faculty of Medicine**

### **C- Distribution of marks**

<b>Mid term exam</b>	<b>20 % (including quiz tests marks)</b>
<b>Practical exam</b>	<b>16.7%</b>
<b>Final written exam</b>	<b>50%</b>
<b>Final Oral exam</b>	<b>13.3 %</b>
<b>Total</b>	<b>100%</b>

### **8- List of references**

1- Course notes:

Department course notes (Lectures and practical)

2- Essential books:

Katzung's Pharmacology: Examination and Board Review 12<sup>th</sup> edition  
Anthony J. Trevor , Bertram G. Katzung, Susan B. Masters (2012)

3- Recommended books;

Goodman and Gillman, 11<sup>th</sup> edition (2014)

4- Periodicals and web sites:

Midline Pubmed, Google, Science life, <http://www.med-ed-online.org/>

**Course coordinator: Dr.Mohamed Mostafa Elbadr**

**Head of Department: Prof. Mostafa Mahmoud Hamdy**

**Date: 10-2016**