



Quality Assurance Unit



Tanta University  
Faculty of Medicine

**Department of Medical Pharmacology**

**Course Specifications**

**Pharmacology for  
Neuropsychiatry Diploma  
Degree**

**2015-2016**

# *Course Specifications: Diploma degree of Pharmacology for Neuropsychiatry, 2015-2016*

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## Pharmacology for Neuropsychiatry Diploma Degree Course Specifications

University: Tanta

Faculty: Medicine

Department: Pharmacology

### **A- Administrative Information**

1- Course title: Diploma degree in Neuropsychiatry

2- Department offering the program: Neuropsychiatry Department

3- Department responsible for the course: Medical pharmacology

4- Course code: TMED 03 A15-pharma

5- Level:

First part

6- No. of Credit / taught hours: (First part): 1 credit hour, theoretical only (1 hour /week for 15 weeks)

7- Authorization date of course specification: 4 / 12/2015

### **B- Professional Information**

#### **1 – Overall Course aims**

- Perfect the bases and methods of medical researches
- Apply analytical methods when dealing with medical problem
- Apply his medical knowledge and merge it with related knowledge

#### **2 – Intended learning outcomes (ILOs):**

##### **a. Knowledge and understanding:**

*By the end of the program graduate should be able to :*

-a1-Describe the basic theories and principles of pharmacology and related sciences needed in his career.

#### **3-Course contents**

##### **Obligatory course (1 credit hour)**

##### **1. General pharmacology (2 hours)**

###### **a) Pharmacokinetics:**

- Absorption : Bioavailability, first-pass effect**
- Distribution, drug-plasma protein binding, organ blood flow Barriers,apparent volume of distribution**
- Excretion : renal excretion,biliary excretion**

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iv. **Biotransformation,enzymes involved in drug  
biotransformation**

**b) Pharmacodynamics:**

i. **Mechanisms of action of drugs.**

ii. **Drug interaction both beneficial and adverse.**

iii. **Adverse drug effects**

**2. Neuropharmacology (6 hours)**

i. **Neurotransmitter and Receptor systems in the brain**

ii. **Muscarinic receptor agonists and antagonists**

iii. **Agents acting at the neuromuscular Junction and Autonomic  
Ganglia**

iv. **Adrenergic agonists and antagonists**

v. **5-Hydroxytryptamine (Serotonin) and dopamine**

vi. **Neurodegenerative Disorders – and drugs used to treat them**

vii. **Drug therapy of depression and anxiety disorders**

viii. **Pharmacotherapy of psychosis and mania**

ix. **Pharmacotherapy of epilepsy**

x. **Analgesics**

xi. **Hypnotics and sedatives**

xii. **Drug addiction and drug abuse**

**3. Hematological pharmacology (2hours)**

i. **Pharmacotherapy of coagulation disorders**

ii. **Pharmacotherapy of anemia**

**4. Chemotherapy (5 hours)**

i. **General Principles of Antimicrobial Therapy**

ii. **Penicillins, Cephalosporins, and Other  $\beta$ -Lactam Antibiotics**

iii. **Aminoglycosides**

iv. **Protein Synthesis Inhibitors antibacterial Agents**

v. **Sulfonamides, Trimethoprim-Sulfamethoxazole, Quinolones**

vi. **Chemotherapy of Malaria**

vii. **Chemotherapy of Protozoal Infections**

viii. **Chemotherapy of Helminth Infections**

ix. **Chemotherapy of Tuberculosis and Leprosy**

x. **Antifungal Agents**

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- xi. **Antiviral Agents**
- xii. **Antiretroviral Agents and Treatment of HIV Infection**
- xiii. **General Principles and classification of Cancer**  
**Chemotherapy**
- xiv. **Cytotoxic Agents**
- xv. **Targeted Therapies: Tyrosine Kinase Inhibitors, Monoclonal Antibodies, and Cytokines**

### **2- Practical course (0.5 credit hour)**

- Prescription writing (5 hours)
- How to manage clinical cases under different scenarios(5 hours)
- calculation of drug dosage and its individualization according to each patient(5 hours)

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

**Illustrated lectures**

**Tutorial sessions,**

### **5-Student Assessment**

End of semester exam in the 15<sup>th</sup> week

### **6- List of references**

6-1 Essential books (text books)

-Goodman & Gilman's : The Pharmacological Basis of Therapeutics.

-Basic & Clinical Pharmacology (ed. G. Katzung)

6-2 Recommended books

- Pharmacology (ed. Rang H.P.& Dale M.)

-Lippincott (illustrated pharmacology Review).

- Pharmacology board review (Gary C. Rosenfeld & David S. Loose)

-Clinical Pharmacology (DR. Laurence)

6-3- Periodical, web sites:

-Br. J. Pharmacology

- Biochemical Pharmacology

-www. biomed central com.

-www.Pubmed.Com

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-www.medscape. Com.[www.eulc.edu.eg](http://www.eulc.edu.eg)

www.Science direct. Com

www.Wiley Blackwell.com

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

**7-Other resources/ facilities required for teaching and learning to achieve the above ILOs**

None

**8- we certify that all of the information required to deliver this course is contained in the above specifications and will be implemented**

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Course coordinator and head of department

name :Prof. Mohamed Nabih Abdel Rahman Abdel Dayem

signature

Date 04/12/2015

Head of quality assurance unit

name: Prof

Signature

Date