

## Course Syllabus of Pharmacology

**Faculty :** Medicine and health sciences

**Department:** Basic Sciences

**Program :** Bachelor of Medicine and Surgery

I. General information about the course instructor :							
Name	إ.د عبد الباسط ظاهر	Office Hours(3 Hours Weekly )					
Location & phone number		Sat	Sun	Mon	Tue	Wed	Thu
Email			2H				2H

II. General information about the course:							
1.	Course Title :	Pharmacology					
2.	Course Code and Number :	BMD09					
3.	Credit Hours :	Credit Hours					Total
		Theoretical	Seminar/ Tutorial	Practical	Clinical	Training	
		3.5	-	0.5	-	-	4
4.	Study Level and Semester:	3rd year/ 1 <sup>st</sup> semester					
5.	Pre-requisites	None					
6.	Co-requisites	None					
7.	Program in which the course is offered:	Bachelor of Medicine & Surgery					
8.	Teaching Language:	English					
9.	Instruction location:	University of Science and Technology, Sana'a					

### III. Course Description

This course is designed to provide medical student with basic knowledge in pharmacology. In this course emphasis is placed on drug groups and prototypes in general. A brief introduction on the basic principles of pharmacokinetics and pharmacodynamic are discussed in relation to different drug group. Mechanism of action and drug adjustment according to drug metabolism are also emphasized..

### IV. Course Aims:

The aims of the course are :

- 1-To provide the students with basic knowledge of the pharmacokinetic and Pharmacodynamic of drugs.
- 2-To acquire the student knowledge about drugs and their sources concerning their identities, safety, optimum use in medication and contraindications.
- 3-To learn how the drug is worked .
- 4-To enable students to gain the skill of application of drugs from clinical aspect of view-with understand the safe use of drugs.

### V. Course Intended Learning Outcomes (CILOs) :

- 1) Identify the pharmacokinetic, pharmacodynamics and pharmacotherapeutic properties of different groups of drugs affecting body systems.
- 2) Recognize the adverse and toxic effects of commonly used drug groups, and their management.
- 3) Explain the limitations to the use of drugs such as contraindications and drug interactions.
- 4) Classify groups of drugs and their mechanism of action.
- 5) Predict drug adverse reactions
- 6) Obtain comprehensive drug history of the patient
- 7) Calculate accurately drug's dosage, bioavailability, plasma half -life and volume of distribution in different patient populations.
- 8) Perform with precision different technique of drug administration
- 9) Use current I.T for appropriate drug data base to each information about

<b>VI. Course topics and sub-topics (theoretical and practical) with contact hours and alignment to CILOs</b>				
<b>Topics/Units of Course Contents</b>				
<b>First: Theoretical Aspects</b>				
<b>No .</b>	<b>Course Topics/Units</b>	<b>Sub-topics</b>	<b>No. of lectures</b>	<b>Contact Hours</b>
<b>1</b>	Introduction of pharmacology	Drug receptors & Pharmacodynamics -Route of drug administration -Pharmacokinetic of drugs -Drug-Protein binding -Drug-Drug interactions -Some important pharmacological terms	7	14
<b>2</b>	Autonomic Nervous System:	-Introduction of A.N.S -Sympathomimetic agents -Sympatholytic agents Parasympathomimetic agents -Parasympatholytic agents -Ganglion blocking & Stimulating agents	7	14
<b>3</b>	Autocoids:	-Histamine & antihistamines -Serotonin & drugs acting on its receptors -Prostaglandins & therapeutic uses of their analogs	5	10
<b>4</b>	Chemotherapeutic drug	A) -lactam antibiotics & other inhibitors of cell wall synthesis -Chloramphenicol, Tetracyclines, Macrolides and Clindamycin -Aminoglycosides -Sulfonamides, Trimethprim and Quinolones. B)-Antifungal agents	7	14
<b>Total</b>			<b>26</b>	<b>52=3.5 CH</b>

<b>Second: Practical/Tutorial/Clinical Aspects</b>			
<b>No.</b>	<b>Practical/Tutorial/Clinical topics</b>	<b>No. of labs</b>	<b>Contact Hours</b>
1	Dosage form	1	2
2	Route of drug administration	1	2
3	Prescription writing	1	2
4	Autonomic pharmacology: effects of adrenaline on heart	1	2
5	Autonomic pharmacology: effects on mitotic & mydriatics	3	5
6	Clinical case : organophosphorus poisoning	1	2
<b>Total</b>		<b>8</b>	<b>15=0.5 CH</b>