Course Specification
Student Version

Course Title:	Basic Pharmacology
Course Code:	BPC 204
Department:	Basic Medical Sciences
Program:	Bachelor of Medicine and Surgery
College:	Vision College in Riyadh
Institution:	Vision College in Riyadh
Revised:	July 2025

A. Course Identification

1. Credit hours: 4 (2+1+1)
2. Level/year at which this course is offered: Level 4/Year 2
3. Pre-requisites for this course (if any): BAN 203, MBG 203
4. Co-requisites for this course (if any): None

B. Teaching Methods

1	Lecture
2	Practical Session
3	Seminar

C. Course Description and Objectives

1. Course Description

The course in is designed to prepare the student for the clinical study of therapeutics by providing knowledge of the way drugs modify the biological function. The course includes a systematic study of the effects of drugs on the different organ systems and the disease processes, the mechanisms by which drugs produce their therapeutic and toxic effects, and the factors influencing their absorption, distribution and biological actions.

2. Course Main Objective

The main purpose of this course is to provide the students with a solid foundation in the basic concepts and scientific underpinnings of pharmacology, and to provide students with a comprehensive introduction to the fundamentals of pharmacotherapy.

3. Course Objectives

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

- Describe the principles of drug development.
- Identify the common dosage forms and routes of drug administration.
- Explain how drug dosing and its therapeutic levels are affected by absorption, distribution, metabolism and excretion.
- Describe the common mechanisms and dynamics of drug action.
- Identify major drug interactions and side effects.
- Apply principles of drug action on chemotherapeutics, anti-inflammatory drugs, autonomic drugs, and autacoids.
- Demonstrate proper prescription writing for normal and controlled drugs.
- Interpret the dose-response effect in laboratory animals in the simulated pharmacology lab.
- Demonstrate effective computer skills to navigate the web and search for the latest update on pharmacology and therapeutics.
- Collaborate with colleagues demonstrating presentation skills, group dynamics and teamwork competencies.

- Demonstrate lifelong learning skills and update knowledge, clinical and technology skills.
- Demonstrate skills of receiving educational feedback on performance.

D. Course Content

No	List of Topics
1	Introduction to Pharmacology
2	Pharmacokinetics including the following: Drug Absorption Bioavailability and Drug Distribution Drug Biotransformation and Drug Elimination
3	Pharmacodynamics including the following: Mechanisms of Drug action Dose/Response Relationship Drug-Receptor Types
4	Drug interactions and prescribing
5	Drugs used in treatment of infections
6	The process of drug discovery, pharmacogenomics, and personalized medicine
7	Principles of adverse drug reaction and toxicology
8	Anti-inflammatory and immunosuppressant drugs
9	Drugs therapy for cancer
10	Drugs acting on autonomic nervous system and autacoids

E. Assessment Tools

#	Assessment task	Percentage of Total Assessment Score
1	Seminar Evaluation Using Rubrics	10%
2	Quizzes	10%
3	Midterm Exam	20%
4	Final Practical Exam	20%
5	Final Written Exam	40%
	Total	**100%**

F. Learning Resources

Essential References	Vanderah T.W. (2024), Katzung's Basic & Clinical Pharmacology, 16e. McGraw Hill. Access Medicine.
Supportive References	Whalen K. (2022), Lippincott Illustrated Reviews: Pharmacology, 8e. Wolters Kluwer.
Electronic Materials	1. LMS resources 2. Drug Bank Online 3. Medical Pharmacology 4. Drugs.com
Other Learning Materials	None