



In the name of Allah

**Iran University of Medical Sciences
and Health Services**

Course plan
Basic Pharmacology

Department of Pharmacology
Faculty of Medicine

General Information:

Faculty: Medicine

Department: Pharmacology

Degree and Field of Study: Doctor of Medicine (M.D.)

Course Name: Basic Pharmacology

Number of Credits: 1

Type of Credit: Theoretical

Prerequisites: Biochemistry-Physiology-Anatomy

Class Time: Mondays at 8:00 a.m.

Location: Faculty of Medicine

Number of Students: 60-100

Course Coordinator: Dr. Rahimi Moghadam

Instructors (in alphabetical order): Dr. Soltan Ahmad Ebrahimi, Dr. Fariborz Kayhanfar, Dr. Manijeh Metvallian

Course Description:

The Basic Pharmacology course is taught in the 5th term of the medical program (Basic Sciences stage) to improve medical students' knowledge of drugs, their mechanisms of action, uses, and side effects.

Main Objective:

During this course, the students will be introduced to the basic concepts of pharmacology.

Specific objectives

At the end of the course, the students will be able to:

- 1) Explain the basic principles of pharmacology, the concept of receptors, and how to investigate the chemical and mathematical effects of drugs
- 2) Explain the general principles of pharmacokinetics and the factors affecting the absorption, distribution, and excretion of drugs and the metabolism of drugs
- 3) Know the different forms of drugs
- 4) Know how the autonomic nervous system controls vital functions and how related drugs work.

Teaching methods:

- Lecture
- Scheduled lecture
- Q&A
- FLEEP Classroom
- Group discussion
- Problem-Based Learning (PBL)
- Team-Based Learning (TBL)
- Other (please specify): Uploading recorded class content in case of virtual education

Student Duties and Responsibilities:

- 1) Active and consistent participation in class sessions
- 2) Studying each lesson before and after class based on the suggested resources
- 3) Asking questions about the material to gain a deeper understanding of the topics

4) Preparing for the end-of-course assessment

Teaching aids:

- Whiteboard
- Chalkboard
- Slide projector
- Other items (please name): Learning system LMS such as Big Blue Button, Google Meet and Zoom for virtual education

Evaluation method and percentage of score: (of total score)

- Midterm exam ----- Percentage of score
- End of semester exam-100- Percentage of score
- Homework ----- Percentage of score
- Active participation in class ----- Percentage of score

Other items (please list) -----

Suggested References for further reading:

1. Bertram G. Katzung, Marieke Kruidering-Hall, Anthony J. Trevor. Katzung & Trevor's Pharmacology: Examination & Board Review (14th Edition), 2024.
2. Katzung BG and Trevor AJ. Basic and Clinical Pharmacology (16th Edition), 2024.
3. Laurence L. Brunton, Randa Hilal-Dandan, Björn C. Knollmann. Goodman & Gilman's: The Pharmacological Basis of Therapeutics (14th edition), 2022

Weekly schedule of lesson presentations

Session Title	Hours	Instructor
Basic Pharmacology & Pharmacodynamics	2	Dr Manijeh Motevalian
Pharmacokinetics (1)	2	Dr Fariborz Keyhanfar
Pharmacokinetics (2)	2	Dr Fariborz Keyhanfar
Pharmaceutical dosage forms	2	Dr Manijeh Motevalian
Drug Discovery & Development	2	Dr Soltan Ahmad Ebrahimi
Autonomic Nervous System	2	Dr Soltan Ahmad Ebrahimi
Cholinergic and Anti-Cholinergic Drugs	2	Dr Soltan Ahmad Ebrahimi
Adrenergic and Anti-Adrenergic Drugs	2	Dr Soltan Ahmad Ebrahimi
Total Hours		16
Total Mark		20