In the Name of God



Iran University of Medical Sciences
Center for Educational Research and Development in Medical Sciences
Curriculum and Educational Planning Unit

Course Plan

(For a complete course; for example, 17 two-hour sessions for a 2-credit course)

School of Medicine
Department: Pharmacology

Course Information:

Course title: Basic Pharmacology
Credits: 1
Course type: Theoretical
Prerequisite: System Physiology and Biochemistry
Class time: Mondays at 8:00 am
Location: School of Medicine
Number of students: 100–300
Course director: Dr. Parvaneh Rahimi-Moghaddam
Instructors (in alphabetical order): Dr. Soltan Ahmad Ebrahimi, Dr. Fariborz Keyhanfar, Dr. Manijeh Motevalian
Degree and Field of study: Doctor of Medicine (MD), Medicine
Stage: Basic Sciences (5th Semester)

Course Director Information:

Academic rank: Professor
Specialty: Pharmacology
Office location: School of Medicine, Ground Floor, Department of Pharmacology, Room 173
Office telephone: 02186703173
Email address: rahimi.p@iums.ac.ir, parrahmog@gmail.com

Course Description: (Please describe)
During this course, students become familiar with the fundamental concepts of pharmacology.

Intermediate Objectives: (In fact, these are the general objectives of the course plan) (This means breaking the general objective into specific components that are clearer and more explicit and represent the main axes of the program. Intermediate objectives can be divided into more specific components called specific objectives, which are essentially behavioral objectives.)

1) Familiarize students with the basic principles of pharmacology, the concept of receptors, and the chemical and mathematical analysis of drug effects
2) Acquire knowledge of the general principles of pharmacokinetics and the factors affecting drug absorption, distribution, and excretion, as well as drug metabolism
3) Acquire knowledge and information about the stages of drug discovery and development

4) Acquire knowledge and information about different pharmaceutical dosage forms
5) Acquire knowledge of how vital functions are controlled by the autonomic nervous system
6) Acquire knowledge of cholinergic drugs
7) Acquire knowledge of anticholinergic drugs
8) Acquire knowledge of adrenergic drugs
9) Acquire knowledge of antiadrenergic drugs

Teaching Methods:
☐ Lecture
☑ **Planned lecture**
☑ **Question and answer**
☑ **Group discussion**
☐ Problem-Based Learning (PBL)
☐ Team-Based Learning (TBL)
Other (please specify): ----------

Student Responsibilities and Assignments: (Please describe)
1) Continuous and active participation in class sessions
2) Study each lesson before and after the class based on the recommended reference
3) Ask questions about the material to gain a deeper understanding of the topics
4) Preparation for the end-of-course assessment

Instructional Aids:
☑ **Whiteboard**
☐ Blackboard and chalk
☑ **Slide projector**
Other (please specify): ----------

Assessment Method and Percentage of Grade: (of the total grade)
☑ **Midterm examination -40% of grade**
☑ **Final examination – 60% of grade**
☐ Assignments ----- % of grade
☐ Active class participation ----- % of grade
Other (please specify): -- 4 multiple-choice questions from each topic

Type of examination
☐ Essay
☐ Short answer
☑ **Multiple choice questions (MCQ)**
☐ Matching
☐ True–False
Other (please specify): ----------

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Recommended Study References: (Please specify):

- English References:

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

- ✓ Printed
- ✓ Online

- Persian References:

Translations of the above books

- ✓ Printed

Course Schedule for Basic Pharmacology
Class day and time: Monday, 8:00 AM

Session Title	Hours	Instructors
General Pharmacology and Pharmacodynamics	2	Dr. Motevalian
Pharmacokinetics (Absorption, Distribution, Excretion)	2	Dr. Keyhanfar
Drug Metabolism	2	Dr. Keyhanfar
Stages of Drug Discovery and Development	2	Dr. Ebrahimi
Dosage Forms	2	Dr. Motevalian
General Principles of the Autonomic Nervous System	2	Dr. Ebrahimi
Cholinergic Drugs	1	Dr. Ebrahimi
Anticholinergic Drugs	1	Dr. Ebrahimi
Adrenergic Drugs	1	Dr. Ebrahimi
Antiadrenergic Drugs	1	Dr. Ebrahimi