



Tishk International University
Faculty of Applied Science
Medical Analysis Department

INTRODUCTION TO PHARMACOLOGY COURSE

Lecture – 1
Second Semester
02-02-2026

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Course Description

This course introduces the fundamental principles of pharmacology, focusing on:

- Drug classification systems
- Mechanisms of drug action
- Pharmacokinetics (ADME)
- Pharmacodynamics
- Drug–drug interactions
- Toxicology and drug safety



Outline

- General Classroom Policy
- Course Overview
- Expectations
- Main Focus
- Course Syllabus
- Questions description



The Course keywords

- Pharmacokinetics (ADME)
- Pharmacodynamics
- Drug metabolism
- Bioavailability
- Half-life
- Clearance
- Drug-receptor interaction



Expectations

From me:

1. Knowledge and expertise
2. Effective communication
3. Accessibility and availability
4. Respect for diversity
5. Make scientific environment
6. Listen to your ideas
7. Quick response to your inquiries
8. Assessment and feedback

From you:

1. Active Participation in discussions
2. Response to ambiguous statements
3. Self-respect and respect for all.
4. Note-taking during lectures
5. Utilising the office hours effectively
6. Early preparations for quizzes and exams
7. Honesty and Transparency
8. And many more

Learning Outcomes

Explain pharmacokinetic and pharmacodynamic processes.

Classify major drug groups.

Interpret clinical drug actions and toxicities.

Communicate pharmacological knowledge in written and oral formats.

Week	Topic
1	Introduction to Pharmacology
2	Pharmacokinetics (ADME)
3	Pharmacodynamics
4	Steroid & Non-Steroid Drugs
5	Nervous System Pharmacology
6	Cardiovascular Pharmacology
7	Antimicrobial Agents
8	Endocrine & Metabolic Drugs
9	Hematology & Chemotherapy
10	General Toxicology
11	Clinical Toxicology & Drug Safety
12	Student Presentations & Review



COURSE SYLLABUS

Classroom Policies

- **Attendance:** Strongly encouraged; active participation expected.
- **Punctuality:** Late arrival disrupts learning and is not permitted.
- **Electronic Devices:** Restricted unless for academic use.
- **Class Conduct:** Respectful behavior and minimal movement during lectures.
- **Note-Taking:** Students must bring materials and maintain personal notes.



Assessment & Course Requirements

Component	Weight
Quizzes	15%
Midterm Exam	20%
Presentation	15%
Written Report / Mini-Project	10%
Final Examination	40%
Total	100%

Quiz Format

Quizzes will test comprehension of recent lectures and include:

- Multiple choice
- True/False
- Fill-in-the-blank
- Matching
- Short answer

Presentation Requirement

Assessment Criteria:

- Scientific accuracy
- Slide clarity
- Explanation quality
- Time management
- Ability to answer questions

Each student (or group) will deliver a 10-minute presentation on an assigned pharmacological topic such as:

- Drug mechanisms
- Case studies
- Toxicity profiles
- Emerging therapeutics

Written Report / Mini-Project

Grading Criteria:

- Scientific depth
- Organization
- Referencing quality
- Originality
- Writing clarity

Must Include:

- Background & classification
- Mechanism of action
- Clinical uses
- Adverse effects
- Recent research references

Examination Question Structure

Students may be asked to:

- Define
- Explain
- Describe
- Compare & contrast
- Elucidate processes or mechanisms

Midterm and Final
exams will include:

- 1) Multiple-choice questions
- 2) True/False
- 3) Fill-in-the-blank
- 4) Short answers
- 5) Matching

References

- Neal MJ. Medical Pharmacology at a Glance. Wiley-Blackwell.
- Hollinger MA. Introduction to Pharmacology.
- Additional journal articles will be provided during the semester.