



**PHARMACY  
INTEGRATED ACADEMIC STUDIES  
SECOND YEAR OF STUDY**

2025/2026

**PHARMACOLOGY 1**

Title of the course:

## **PHARMACOLOGY 1**

This course is assigned 6 ECTS credits.

It consists of 4 active teaching hours per week: 2 hours of lectures and 2 hours of practical classes.

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## TEACHERS:

	<b>Name and surname</b>	<b>E-mail</b>	<b>Title</b>
1.	Natasa Djordjevic	natashadj2002@yahoo.com	Full professor
2.	Tamara Nikolic Turnic	tnikolict@gmail.com	Associate professor
3.	Radisa Pavlovic	r.pavlovic2407@gmail.com	Associate professor

## COURSE STRUCTURE:

<b>Module No</b>	<b>Title</b>	<b>No of weeks</b>	<b>Hours of lectures per week</b>	<b>Hours of practical classes per week</b>	<b>Responsible teacher</b>
1.	<b>Pharmacology 1</b>	15	2	2	Natasa Djordjevic
					<b>Σ 30+30=60</b>

## GRADING:

The grade will be equivalent to the number of points achieved (see the table). The points will be awarded according to the following scheme:

### 1. PRE-EXAM ACTIVITIES:

Based on participation in classes and demonstrated knowledge during exercises, a student can earn up to 2 points per class. In this way, a maximum of 30 points can be earned.

### 2. FINAL EXAM:

The student has the right to take the final exam only if they have previously earned more than 50% of the maximum number of points allocated for pre-exam activities, i.e., at least 16 points for class participation.

The final exam includes answering questions based on the material covered in the module, as follows:

- a) 10 multiple-choice or fill-in-the-blank questions, each worth 2 points
  - up to 20 points can be earned in this section,
- b) 5 open-ended questions, each worth 10 points
  - up to 50 points can be earned in this section.

## FINAL GRADE

The final grade will be formed according to the following table:

Grading system		
Grade	Total No of points	Description
10	91-100	Excellent
9	81-90	Exceptionally good
8	71-80	Very good
7	61-70	Good
6	51-60	Passing
5	< 51	Failing

## Literature

Atkinson AJ, et al. Principles of Clinical Pharmacology. 2nd ed. Burlington: Elsevier; 2007.

Katzung B. Basic and Clinical Pharmacology. 10th ed. New York: McGraw-Hill; 2004.

Brunton LL, editor. Goodman & Gilman's The Pharmacological Basis of Therapeutics. 11th ed. New York: McGraw-Hill; 2006.

DiPiro JT, et al. Pharmacotherapy: a pathophysiologic approach. 7th ed. New York: McGraw-Hill; 2008.

Baxter K, editor. Stockley's drug interactions. 8th ed. London, UK; Pharmaceutical Press; 2008.

# Schedule

## Module 1: PHARMACOLOGY 1

### COURSE UNIT 1 (WEEK 1):

Lectures: 2 hours	Practical classes: 2 hours
Introduction to pharmacology. Drug discovery and development. Drug application Transport through the cell membrane.	Drug formulations. Prescriptions.

### COURSE UNIT 2 (WEEK 2):

Lectures: 2 hours	Practical classes: 2 hours
Mechanism of drug action. Receptor theory. Drug dosage. Dose-effect relationship.	Narrow therapeutic index drugs.

### COURSE UNIT 3 (WEEK 3):

Lectures: 2 hours	Practical classes: 2 hours
Pharmacokinetics: absorption, distribution, metabolism, and excretion of drugs. Pharmacogenetics.	Pharmacokinetic calculations.

### COURSE UNIT 4 (WEEK 4):

Lectures: 2 hours	Practical classes: 2 hours
Adverse drug reactions. Drug allergies. Drug therapy in pregnant and nursing women, children, and the elderly.	Adverse drug reactions causality assessment and reporting.

COURSE UNIT 5 (WEEK 5):

Lectures: 2 hours	Practical classes: 2 hours
Pharmacology of the autonomic nervous system. Cholinergic and anticholinergic drugs. Adrenergic and antiadrenergic drugs.	Ocular pharmacology. Histamine, serotonin, and nicotine.

COURSE UNIT 6 (WEEK 6):

Lectures: 2 hours	Practical classes: 2 hours
Introduction to psychopharmacology and neuropharmacology. Pharmacotherapy of psychosis.	Clinical case.

COURSE UNIT 7 (WEEK 7):

Lectures: 2 hours	Practical classes: 2 hours
Pharmacotherapy of depression. Pharmacotherapy of mania.	Clinical case.

COURSE UNIT 8 (WEEK 8):

Lectures: 2 hours	Practical classes: 2 hours
Pharmacotherapy of epilepsy. Pharmacotherapy of Parkinson's disease.	Clinical case.

COURSE UNIT 9 (WEEK 9):

Lectures: 2 hours	Practical classes: 2 hours
Opioids. Analgesic-antipyretic and anti-inflammatory drugs. Drug addiction.	Clinical case.

COURSE UNIT 10 (WEEK 10):

Lectures: 2 hours	Practical classes: 2 hours
Sedatives and hypnotics. Pharmacotherapy of anxiety disorder. Anesthetics and myorelaxant drugs.	Clinical case.

COURSE UNIT 11 (WEEK 11):

Lectures: 2 hours	Practical classes: 2 hours
Pharmacotherapy of congestive heart failure. Diuretics.	Clinical case.

COURSE UNIT 12 (WEEK 12):

Lectures: 2 hours	Practical classes: 2 hours
Pharmacotherapy of arterial hypertension. Pharmacotherapy of myocardial ischemia.	Clinical case.

COURSE UNIT 13 (WEEK 13):

Lectures: 2 hours	Practical classes: 2 hours
Pharmacotherapy of hypercholesterolemia and dyslipidemia. Antiarrhythmic drugs.	Clinical case.

COURSE UNIT 14 (WEEK 14):

Lectures: 2 hours	Practical classes: 2 hours
Pharmacotherapy of asthma and chronic obstructive pulmonary disease.	Clinical case.

COURSE UNIT 15 (WEEK 15):

Lectures: 2 hours	Practical classes: 2 hours
Antitussive drugs, expectorants and mucolytics. Oxygen therapy.	Clinical case.

## **LECTURES AND PRACTICE**

**TUESDAY**

**YELLOW ROOM 37 (R37)**

**13.20-16.20**

**[Schedule of lectures, practical classes and tests – academic calendar](#)**

## PHARMACOLOGY 1: COURSE SCHEDULE

Module	Week	Type	Title	Teacher
<b>1</b>	1	<b>L</b>	Introduction to pharmacology. Drug discovery and development. Drug application Transport through the cell membrane.	Natasa Djordjevic
		<b>P</b>	Drug formulations. Prescriptions.	
	2	<b>L</b>	Mechanism of drug action. Receptor theory. Drug dosage. Dose-effect relationship.	Radisa Pavlovic
		<b>P</b>	Narrow therapeutic index drugs	
	3	<b>L</b>	Pharmacokinetics: absorption, distribution, metabolism, and excretion of drugs. Pharmacogenetics.	Natasa Djordjevic
		<b>P</b>	Pharmacokinetic calculations.	
	4	<b>L</b>	Adverse drug reactions. Drug allergies. Drug therapy in pregnant and nursing women, children, and the elderly.	Tamara Nikolic Turnic
		<b>P</b>	Adverse drug reactions causality assessment and reporting.	
	5	<b>L</b>	Pharmacology of the autonomic nervous system. Cholinergic and anticholinergic drugs. Adrenergic and antiadrenergic drugs.	Natasa Djordjevic
		<b>P</b>	Ocular pharmacology. Histamine, serotonin, and nicotine.	

## PHARMACOLOGY 1: COURSE SCHEDULE

Module	Week	Type	Title	Teacher
	6	L	Introduction to psychopharmacology and neuropharmacology. Pharmacotherapy of psychosis.	Natasa Djordjevic
		P	Clinical case.	
	7	L	Pharmacotherapy of depression. Pharmacotherapy of mania.	Natasa Djordjevic
		P	Clinical case.	
	8	L	Pharmacotherapy of epilepsy. Pharmacotherapy of Parkinson's disease.	Tamara Nikolic Turnic
		P	Clinical case.	
	9	L	Opioids. Analgesic-antipyretic and anti-inflammatory drugs. Drug addiction.	Natasa Djordjevic
		P	Clinical case.	
	10	L	Sedatives and hypnotics. Pharmacotherapy of anxiety disorder. Anesthetics and myorelaxant drugs.	Radisa Pavlovic
		P	Clinical case.	
	11	L	Pharmacotherapy of congestive heart failure. Diuretics.	Natasa Djordjevic
		P	Clinical case.	

## PHARMACOLOGY 1: COURSE SCHEDULE

Module	Week	Type	Title	Teacher
	12	L	Pharmacotherapy of arterial hypertension. Pharmacotherapy of myocardial ischemia.	Natasa Djordjevic
		P	Clinical case.	
	13	L	Pharmacotherapy of hypercholesterolemia and dyslipidemia. Antiarrhythmic drugs.	Tamara Nikolic Turnic
		P	Clinical case.	
	14	L	Pharmacotherapy of asthma and chronic obstructive pulmonary disease.	Radisa Pavlovic
		P	Clinical case.	
	15	L	Antitussive drugs, expectorants and mucolytics. Oxygen therapy.	Natasa Djordjevic
		P	Clinical case.	

L-lectures; P – Practical classes, E-exam