Medicinski fakultet u Rijeci

IZVEDBENI NASTAVNI PLAN
2026/2027

Za kolegij

Pharmacology

Studij:	**Medical Studies in English (R)** Sveučilišni integrirani prijediplomski i diplomski studij
Katedra:	**Zavod za temeljnu i kliničku farmakologiju s toksikologijom**
Nositelj kolegija:	**prof. dr. sc. Pilipović Kristina, dr. med.**
Godina studija:	**3**
ECTS:	**10**
Stimulativni ECTS:	**0 (0.00%)**
Strani jezik:	**Mogućnost izvođenja na stranom jeziku**

Podaci o kolegiju:

Pharmacology is a compulsory course in the third year of the Integrated Undergraduate and Graduate University Study of Medicine in English. It consists of 30 hours of lectures, 85 hours of seminars, and 15 hours of practicals - 130 hours (10 ECTS).

The main aim of the Pharmacology course is to provide students with a systematic understanding of the fundamental principles of pharmacology, including pharmacokinetics, pharmacodynamics, mechanisms of drug action, drug–receptor interactions, and the factors determining the effects and disposition of drugs in the body. The course also introduces the principles of pharmacotoxicology and the pharmacological basis of rational drug use.

The objective of the course is for students to acquire knowledge of the mechanisms of action, pharmacological effects, pharmacokinetic properties, routes of administration, and major adverse effects of the most important groups of drugs. Students should be able to recognize and describe the characteristic pharmacological properties of prototype drugs representing the principal pharmacotherapeutic classes, and to relate these properties to their therapeutic effects and potential toxicity.

Ishodi učenja:

LEARNING OUTCOMES FOR THE COURSE

I. COGNITIVE DOMAIN – KNOWLEDGE

- Describe the basic concepts, divisions, and terminology of pharmacology.
- Explain the main pharmacokinetic and pharmacodynamic principles of drug action.
- Describe the factors that influence drug effects, adverse reactions, and toxicity.
- Explain the principles of drug development, safety evaluation, and clinical use.
- Describe the pharmacology of major drug groups affecting the autonomic, central nervous, cardiovascular, respiratory, digestive, endocrine, reproductive, hematopoietic, and infectious disease systems.
- Analyze and compare drugs according to their mechanism of action, therapeutic use, and safety profile.
- Relate pharmacological knowledge to physiological and pathological processes in the body.
- Apply pharmacological knowledge to the interpretation of clinical situations and case-based problems.
- Describe and explain the process of new drug discovery and development.

II. PSYCHOMOTOR DOMAIN – SKILLS

- Present pharmacological information clearly in oral and written form.
- Write prescriptions correctly for finished drugs and medicinal preparations according to established rules.
- Apply prescription-writing rules in magistral and galenic formulations.

Popis obvezne ispitne literature:

1. Katzung BG, Edit., Basic & Clinical Pharmacology, 14th Edition, McGraw-Hill Education, New York, USA, 2018.

2. Bradamante V, Klarica M, Šalković-Petrišić M, Edits. Pharmacology Manual, 1st Edition in English, Medicinska naklada, Zagreb, 2010.

Popis dopunske literature:

1. Ritter J., Flower R, Henderson G, Rang H. Rang & Dale's Pharmacology, 8th Edition, Elsevier, Churchill Livingstone, London, UK, 2015.

Nastavni plan:

Predavanja popis (s naslovima i pojašnjenjem):

L1 Introductory Lecture; Pharmacology – Disciplines; Nature, development and regulation of drugs; Drug Nomenclature

- Explain the fundamental disciplines of pharmacology and their mutual relationship.
- Analyze the phases of new drug discovery and development, including regulatory requirements.
- Interpret basic regulatory frameworks for medicines.
- Interpret the drug nomenclature system and its clinical significance.

L2 Transfer of Drugs Across Cell Membranes; Drug Administration, Absorption and Distribution

- Compare routes of drug administration with regard to pharmacokinetic and clinical implications.
- Explain the mechanisms of drug passage through cell membranes.
- Analyze drug distribution in the body and its impact on drug effect.

L3 Biotransformation and Elimination of Drugs; Pharmacogenomics

- Explain the phases and reactions of drug biotransformation.
- Analyze the impact of genetic variations on drug response (pharmacogenomics).
- Compare drug elimination pathways and their clinical significance.

L4 Drugs and Organism Characteristics Affecting Drug Activity; Allergic and Idiosyncratic Reactions

- Analyze the impact of chemical structure, dose, and administration regimen on drug action.
- Assess the clinical significance of drug interactions.
- Interpret the influence of individual factors (age, sex, body weight) on therapeutic response.
- Differentiate between types of drug hypersensitivity and their mechanisms.

L5 Adrenoreceptor Agonists and Sympathomimetic Drugs; Adrenoreceptor Antagonist Drugs

- Explain the mechanism of action of adrenergic agonists and antagonists.
- Analyze their pharmacological effects, indications, and side effects.
- Compare drug subgroups according to their pharmacokinetics and safety profile.

L6 Nonsteroidal Anti-Inflammatory Drugs, Disease-Modifying Antirheumatic Drugs, Nonopioid Analgesics, & Drugs Used in Gout

- Explain the mechanisms of action of NSAIDs, DMARDs, and analgesics.
- Analyze their clinical use, safety, and limitations.
- Compare different subgroups within the same therapeutic group.

L7 Opioid Agonists and Antagonists

- Explain the mechanisms of action of opioid analgesics and antagonists.
- Analyze their efficacy, safety, and risk of addiction.
- Compare individual opioids according to their pharmacological properties.

L8 Pharmacology of Migraine, ADHD and Narcolepsy; Treatment of Neurodegenerative Diseases (Alzheimer's and Parkinson's Disease); Treatment of Multiple Sclerosis

- Explain the pharmacotherapy of migraine, ADHD, narcolepsy, neurodegenerative diseases (Alzheimer's and Parkinson's disease), and multiple sclerosis.
- Analyze differences between therapeutic approaches and drugs used in the treatment of these neurological disorders.
- Assess the choice of pharmacotherapy based on disease characteristics, patient factors, and therapeutic goals.

L9 Sedative-Hypnotic Drugs; Anxiolytics; Antiseizure Drug

- Explain the mechanisms of action of anxiolytics, hypnotics, and antiepileptics.
- Analyze indications, side effects, and interactions.
- Compare therapeutic options within groups.

L10 Drugs of Abuse

- Analyze the pharmacological properties of addictive substances.

Assess the mechanisms of addiction development and toxicity.
- Explain therapeutic approaches to treating addiction.

Kolokviji popis (s naslovima i pojašnjenjem):

Partial exam I

Partial exam II

Partial exam III

Vježbe popis (s naslovima i pojašnjenjem):

P1 Pharmacological receptors and pharmacodynamics; Pharmacokinetics and pharmacodynamics: rational dosing and time course of drug effect

- Explain fundamental pharmacodynamic concepts.
- Analyze the principles of drug-receptor binding and their impact on the effect.
- Interpret the relationship between drug concentration (dose) and pharmacological response.
- Explain basic pharmacokinetic concepts.
- Analyze pharmacokinetic models and drug elimination kinetics.
- Assess the effect of pH on drug passage and distribution in the body.

P2 Pharmacography: Drug Formulations (Pharmaceutical Formulations); Pharmaceutical Formulations as Systems for Drug Administration; General Drug Prescription Guidelines; Prescribing ”Apothecary” and Galenic Preparations

- Differentiate between dosage forms and their characteristics.
- Assess the suitability of a dosage form for a specific route of administration.
- Apply the rules of rational drug prescribing.
- Write prescriptions for magistral and galenic preparations.

P3 Pharmacography: Prescribing Finished Drug Products

- Apply the principles of rational pharmacotherapy in drug prescribing.
- Use the Register of Drugs in selecting therapy.
- Write prescriptions for finished pharmaceutical products.

Seminarske vježbe popis (s naslovima i pojašnjenjem):

SEMINAR-PRACTICAL: Diuretic Agents; Antihypertensive Agents

To describe and explain the routes of administration, the mechanisms of action, pharmacological effects, the main indications and contraindications, adverse effects, and toxicity of particular drugs that are illustrative examples of the mentioned pharmacotherapeutic groups they belong to. To analyze the pharmacological effects, pharmacokinetic profile, adverse effects, indications, and contraindications between the drugs that belong to different subclasses within the same drug groups and then compare them.

Seminari popis (s naslovima i pojašnjenjem):

S1 Cholinoceptor-Activating & Cholinesterase-Inhibiting Drugs; Cholinoceptor-Blocking Drugs; Skeletal Muscle Relaxants

- Describe and explain the methods of administration of drugs from the above groups, their mechanism of action, pharmacological effects, main indications, contraindications, side effects and toxicity of individual drugs that are illustrative examples of pharmacotherapeutic groups and subgroups
- Analyze the pharmacological effects, pharmacokinetic profile, adverse effects, indications, and contraindications

among drugs from different subgroups within the same drug group, and compare them with each other

S2 Adrenoceptor Agonists & Sympathomimetic Drugs, Adrenoceptor Antagonist Drugs

- Describe and explain the methods of administration of drugs from the above groups, their mechanism of action, pharmacological effects, main indications, contraindications, side effects and toxicity of individual drugs that are illustrative examples of pharmacotherapeutic groups and subgroups
- Analyze the pharmacological effects, pharmacokinetic profile, adverse effects, indications and contraindications among drugs from different subgroups within the same drug group, and compare them with each other

S3 Antipsychotic Agents & Lithium; Antidepressant Agents

- Describe and explain the methods of administration of drugs from the above groups, their mechanism of action, pharmacological effects, main indications, contraindications, side effects, and toxicity of individual drugs that are illustrative examples of pharmacotherapeutic groups and subgroups
- Analyze the pharmacological effects, pharmacokinetic profile, adverse effects, indications, and contraindications among drugs from different subgroups within the same drug group, and compare them with each other

S4 General Anesthetics; Local Anesthetics

- Describe and explain the methods of administration of drugs from the above groups, their mechanism of action, pharmacological effects, main indications, contraindications, side effects, and toxicity of individual drugs that are illustrative examples of pharmacotherapeutic groups and subgroups
- Analyze the pharmacological effects, pharmacokinetic profile, adverse effects, indications, and contraindications among drugs from different subgroups within the same drug group, and compare them with each other

S5 Drugs Used in Asthma and Chronic Obstructive Pulmonary Disease; Histamine: H1-Receptor Antagonists

- Describe and explain the methods of administration of drugs from the above groups, their mechanism of action, pharmacological effects, main indications, contraindications, side effects, and toxicity of individual drugs that are illustrative examples of pharmacotherapeutic groups and subgroups
- Analyze the pharmacological effects, pharmacokinetic profile, adverse effects, indications, and contraindications among drugs from different subgroups within the same drug group, and compare them with each other

S6 Drugs Used in Disorders of Coagulation; Agents Used in Cytopenias; Hematopoietic Growth Factors

- Describe and explain the methods of administration of drugs from the above groups, their mechanism of action, pharmacological effects, main indications, contraindications, side effects, and toxicity of individual drugs that are illustrative examples of pharmacotherapeutic groups and subgroups
- Analyze the pharmacological effects, pharmacokinetic profile, adverse effects, indications, and contraindications among drugs from different subgroups within the same drug group, and compare them with each other

S7 Diuretics; Drugs for the treatment of arterial hypertension

- Describe and explain the methods of administration of drugs from the above groups, their mechanism of action, pharmacological effects, main indications, contraindications, side effects and toxicity of individual drugs that are illustrative examples of pharmacotherapeutic groups and subgroups
- Analyze the pharmacological effects, pharmacokinetic profile, adverse effects, indications, and contraindications among drugs from different subgroups within the same drug group, and compare them with each other

S8 Drugs Used in Heart Failure; Agents Used in Cardiac Arrhythmias

- Describe and explain the methods of administration of drugs from the above groups, their mechanism of action, pharmacological effects, main indications, contraindications, side effects, and toxicity of individual drugs that are illustrative examples of pharmacotherapeutic groups and subgroups
- Analyze the pharmacological effects, pharmacokinetic profile, adverse effects, indications, and contraindications among drugs from different subgroups within the same drug group, and compare them with each other

S9 Vasodilatators & the Treatment of Angina Pectoris; Agents Used in Dyslipidemia

- Describe and explain the methods of administration of drugs from the above groups, their mechanism of action, pharmacological effects, main indications, contraindications, side effects, and toxicity of individual drugs that are illustrative examples of pharmacotherapeutic groups and subgroups
- Analyze the pharmacological effects, pharmacokinetic profile, adverse effects, indications, and contraindications among drugs from different subgroups within the same drug group, and compare them with each other

S10 Hypothalamic & Pituitary Hormones; Thyroid & Antithyroid Drugs; Adrenocorticosteroids &

Adrenocortical Antagonists

- Describe and explain the methods of administration of drugs from the above groups, their mechanism of action, pharmacological effects, main indications, contraindications, side effects, and toxicity of individual drugs that are illustrative examples of pharmacotherapeutic groups and subgroups
- Analyze the pharmacological effects, pharmacokinetic profile, adverse effects, indications, and contraindications among drugs from different subgroups within the same drug group, and compare them with each other

S11 The Gonadal Hormones/Inhibitors; Agents that Affect Bone Mineral Homeostasis

- Describe and explain the methods of administration of drugs from the above groups, their mechanism of action, pharmacological effects, main indications, contraindications, side effects, and toxicity of individual drugs that are illustrative examples of pharmacotherapeutic groups and subgroups
- Analyze the pharmacological effects, pharmacokinetic profile, adverse effects, indications, and contraindications among drugs from different subgroups within the same drug group, and compare them with each other

S12 Pancreatic Hormones & Antidiabetic Drugs; Drugs Used in the Treatment of Gastrointestinal Diseases

- Describe and explain the methods of administration of drugs from the above groups, their mechanism of action, pharmacological effects, main indications, contraindications, side effects, and toxicity of individual drugs that are illustrative examples of pharmacotherapeutic groups and subgroups
- Analyze the pharmacological effects, pharmacokinetic profile, adverse effects, indications, and contraindications among drugs from different subgroups within the same drug group, and compare them with each other

S13 Beta-Lactam and Other Cell Wall- & Membrane-Active Antibiotics; Tetracyclines, Macrolides, Clindamycin, Chloramphenicol, Streptogramins, & Oxazolidinones; Aminoglycosides & Spectinomycin; Sulfonamides, Trimethoprim & Quinolones Antimycobacterial Drugs

- Describe and explain the methods of administration of drugs from the above groups, their mechanism of action, pharmacological effects, main indications, contraindications, side effects, and toxicity of individual drugs that are illustrative examples of pharmacotherapeutic groups and subgroups
- Analyze the pharmacological effects, pharmacokinetic profile, adverse effects, indications, and contraindications among drugs from different subgroups within the same drug group, and compare them with each other

S14 Antifungal Agents; Antiviral Agents; Antiprotozoal Drugs; Clinical Pharmacology of the Antihelminthic Drugs Miscellaneous Antimicrobial Agents; Disinfectants, Antiseptics, & Sterilants

- Describe and explain the methods of administration of drugs from the above groups, their mechanism of action, pharmacological effects, main indications, contraindications, side effects, and toxicity of individual drugs that are illustrative examples of pharmacotherapeutic groups and subgroups
- Analyze the pharmacological effects, pharmacokinetic profile, adverse effects, indications, and contraindications among drugs from different subgroups within the same drug group, and compare them with each other

S15 Drugs for the Treatment of Malignant Diseases (Cancer Chemotherapy and Targeted Antitumor Agents)

- Describe and explain the methods of administration of drugs from the above groups, their mechanism of action, pharmacological effects, main indications, contraindications, side effects, and toxicity of individual drugs that are illustrative examples of pharmacotherapeutic groups and subgroups
- Analyze the pharmacological effects, pharmacokinetic profile, adverse effects, indications, and contraindications among drugs from different subgroups within the same drug group, and compare them with each other

S16 Vaccines; Immune Globulins and Other Complex Biologic Products; Immunopharmacology (Biological Therapy and Development of Modern Drugs)

- Describe and explain the methods of administration of drugs from the above groups, their mechanism of action, pharmacological effects, main indications, contraindications, side effects, and toxicity of individual drugs that are illustrative examples of pharmacotherapeutic groups and subgroups
- Analyze the pharmacological effects, pharmacokinetic profile, adverse effects, indications, and contraindications among drugs from different subgroups within the same drug group, and compare them with each other

S17 Over-the-Counter drugs; Dietary Supplements; Herbal Remedies; Homeopathic Remedies

- Describe and explain the methods of administration of drugs from the above groups, their mechanism of action, pharmacological effects, main indications, contraindications, side effects, and toxicity of individual drugs that are illustrative examples of pharmacotherapeutic groups and subgroups
- Analyze the pharmacological effects, pharmacokinetic profile, adverse effects, indications, and contraindications among drugs from different subgroups within the same drug group, and compare them with each other

Obveze studenata:

Students are obligated to regularly attend and actively participate in classes. Students are allowed to be absent at a maximum of 30 % of the course. It is compulsory to follow and act in accordance with notifications and rules regarding attendance, absence, partial exams, corrections of partial exams, final exam, etc., which will be presented at the first lecture. Additional information and rules will be announced regularly and on time on the Merlin e-learning platform.

Ispit (način polaganja ispita, opis pisanog/usmenog/praktičnog dijela ispita, način bodovanja, kriterij ocjenjivanja):

During Pharmacology course, a student can achieve a maximum of 50 % (**50 points**) of their final grade, while the remaining 50 % (**50 points**) of the grade is obtained at the final exam. Points distribution is as follows

Partial exam I	20 points
Partial exam II	15 points
Partial exam III	15 points
Total (classes)	50 points
Pre-exam colloquium in pharmacography and final exam	50 points
Total (course)	100 points

A. Partial exams

Partial exam I includes the topics covered at **L1-L10 and S1-S3**. It consists of a written test (Test I). Test I will be held on **December 15, 2025.**

Partial exam II includes the topics covered at **S4-S10 and SP1**. It consists of a written test (Test II). Test II will be held on **March 16, 2026**.

Partial exam III includes the topics covered at **S11-S17** and the theoretical part of practicals P1 and P2. Test III will be held on **May 26, 2026**.

The exact time and the venues for the tests will be announced beforehand.

Tests are evaluated according to the scheme:

Test I			**Test II**		
Number of correct answers	**Number of points**		**Number of correct answers**	**Number of points**	
49-50	20		49-50	15	
47-48	19		43-48	14	
43-46	18		37-42	13	
39-42	17		33-36	12	
35-38	16		30-32	11	

33-34	15		28-29	10	
31-32	14		26-27	9	
29-30	13		25	8	
27-28	12		0-24	0	
26	11				
25	10				
0-24	0				

Corrections of the partial exams

Students can access the corrections for the partial exams if they do not pass them or are not satisfied with the points they obtained. If a student retakes a partial exam because they are unsatisfied with the obtained grade points, only the grade points obtained at the retaken partial exam(s) will be considered valid. Students will have the opportunity to correct partial exams only once.

Correction of the tests I, II, and III will be organized on June 23-25, 2026. Exact times and venues will be announced on time.

Students are obligated to apply for the correction(s) of the partial exams. The applications will be received until June 18, 2026, by 12 noon. Suppose students apply for the correction(s) of the partial exams and subsequently decide that they will not be able to access it. In that case, they must personally cancel it at the latest until one workday before the term of the partial exams, **until 12 noon.** If a student does not personally cancel the application for the correction/s of the midterm exams, their final score will be 0 points.

Exceptionally, corrections of the midterm exams will also be organized for the students who are absent from the partial exams due to a justified reason. In that case, they must submit a written explanation and appropriate documentation. The materials have to be addressed to Prof Kristina Pilipović and submitted to the Office of the Department, by June 18, 2026, at 12 noon.

B. Pre-exam Colloquium in Pharmacography

The **pre-exam colloquium in Pharmacography** includes material covered during P1-2 and consists of a written part. On the written test, the task will be to correctly prescribe five prescriptions. For each correctly prescribed recipe, the student will receive 1 point (maximum 5 points).

Pre-exam colloquia in Pharmacography will be held on: **June 12, 2026, June 26, 2026, July 10, 2026, September 1, 2026, and September 15, 2026**. The exact times and the venues of these colloquia will be announced on time.

C. Final exam

Only students who have achieved at least 25 points during the course and have passed the Pharmacography colloquium can take the final exam in Pharmacology. Students with less than 25 credits earned during the course must enroll in the Pharmacology course again in the next academic year.

The final exam consists of an **oral exam**. The maximum number of points that can be obtained at the oral exam is 45 (range 23-45). For the grade 2 (sufficient), the student obtains 23 points; for the grade 3 (good), the student obtains 30 points; for the grade 4 (very good), the student obtains 38; for the grade 5 (excellent), the student obtains 45 points.

The **final grade** is formed based on the results obtained during the course and the grade obtained on the final exam, according to the following scheme:

Percent/credits for the acquired knowledge, skills and competences (course + final exam)	Numerical grading system	ECTS system
90 - 100%	5 (excellent)	A
75 - 89,9%	4 (very good)	B
60 – 74,9%	3 (good)	C
50 - 59,9%	2 (sufficient)	D
0 - 49,9%	1 (unsufficient)	F

Ostale napomene (vezane uz kolegij) važne za studente:

Academic honesty

It is expected that all students and teachers follow the code of academic honesty by the Code of Ethics for the students of the Faculty of Medicine at the University of Rijeka. Please read the policy regarding academic honesty at: http://medical-studies-in-english.com/wp-content/uploads/2016/12/CODEOF-ETHICS.pdf

Contact information

For all questions and concerns, students are encouraged to contact us by e-mail or personally.

SATNICA IZVOĐENJA NASTAVE 2026/2027

Pharmacology

Predavanja (mjesto i vrijeme / grupa)	**Vježbe** (mjesto i vrijeme / grupa)	**Seminari** (mjesto i vrijeme / grupa)	**Seminarske vježbe** (mjesto i vrijeme / grupa)	**Kolokviji** (mjesto i vrijeme / grupa)
02.10.2026				
L1 Introductory Lecture; Pharmacology – Disciplines; Nature, development and regulation of drugs; Drug Nomenclature: • P06 (08:15 - 11:00) [233] ○ P_371				
prof. dr. sc. Pilipović Kristina, dr. med. [233]				
07.10.2026				
L2 Transfer of Drugs Across Cell Membranes; Drug Administration, Absorption and Distribution: • P05 (08:00 - 10:30) [233] ○ P_371				
prof. dr. sc. Pilipović Kristina, dr. med. [233]				
14.10.2026				
L3 Biotransformation and Elimination of Drugs; Pharmacogenomics: • P15 - VIJEĆNICA (08:30 - 11:00) [238] ○ P_371				
doc. dr. sc. Dolenec Petra, dipl. ing. biol., prof. biol. [238]				
21.10.2026				
L4 Drugs and Organism Characteristics Affecting Drug Activity; Allergic and Idiosyncratic Reactions: • P15 - VIJEĆNICA (08:15 - 11:00) [233] ○ P_371				
prof. dr. sc. Pilipović Kristina, dr. med. [233]				
28.10.2026				
L5 Adrenoreceptor Agonists and Sympathomimetic Drugs; Adrenoreceptor Antagonist Drugs: • P02 (08:15 - 11:00) [236] ○ P_371				
doc. dr. sc. Rajič Bumber Jelena, dipl. ing. biol. [236]				

04.11.2026				
L6 Nonsteroidal Anti-Inflammatory Drugs, Disease-Modifying Antirheumatic Drugs, Nonopioid Analgesics, & Drugs Used in Gout: • P01 (08:15 - 11:00) [234] ◦ P_371				
doc. dr. sc. Janković Tamara, dipl. sanit. ing. [234]				
09.11.2026				
	P1 Pharmacological receptors and pharmacodynamics; Pharmacokinetics and pharmacodynamics: rational dosing and time course of drug effect: • P15 - VIJEĆNICA (08:00 - 12:00) [238] ◦ Group I			
doc. dr. sc. Dolenec Petra, dipl. ing. biol., prof. biol. [238]				
10.11.2026				
	P1 Pharmacological receptors and pharmacodynamics; Pharmacokinetics and pharmacodynamics: rational dosing and time course of drug effect: • P15 - VIJEĆNICA (12:15 - 16:00) [238] ◦ Group II			
doc. dr. sc. Dolenec Petra, dipl. ing. biol., prof. biol. [238]				
11.11.2026				
L7 Opioid Agonists and Antagonists: • P15 - VIJEĆNICA (08:15 - 11:00) [233] ◦ P_371				
prof. dr. sc. Pilipović Kristina, dr. med. [233]				
16.11.2026				
		S1 Cholinoceptor-Activating & Cholinesterase-Inhibiting Drugs; Cholinoceptor-Blocking Drugs; Skeletal Muscle Relaxants: • P15 - VIJEĆNICA (08:30 - 12:00) [238] ◦ Group I		
doc. dr. sc. Dolenec Petra, dipl. ing. biol., prof. biol. [238]				
20.11.2026				

L8 Pharmacology of Migraine, ADHD and Narcolepsy; Treatment of Neurodegenerative Diseases (Alzheimer's and Parkinson's Disease); Treatment of Multiple Sclerosis: • ONLINE (08:15 - 11:00) [233] ◦ P_371				
prof. dr. sc. Pilipović Kristina, dr. med. [233]				
23.11.2026				
		S2 Adrenoceptor Agonists & Sympathomimetic Drugs, Adrenoceptor Antagonist Drugs: • P06 (08:00 - 12:00) [236] ◦ Group I S1 Cholinoceptor-Activating & Cholinesterase-Inhibiting Drugs; Cholinoceptor-Blocking Drugs; Skeletal Muscle Relaxants: • P04 (08:30 - 12:00) [238] ◦ Group II		
doc. dr. sc. Dolenec Petra, dipl. ing. biol., prof. biol. [238] · doc. dr. sc. Rajič Bumber Jelena, dipl. ing. biol. [236]				
24.11.2026				
		S2 Adrenoceptor Agonists & Sympathomimetic Drugs, Adrenoceptor Antagonist Drugs: • P06 (12:00 - 16:00) [236] ◦ Group II		
doc. dr. sc. Rajič Bumber Jelena, dipl. ing. biol. [236]				
25.11.2026				
L10 Drugs of Abuse: • P01 (08:15 - 11:00) [172] ◦ P_371				
prof. dr. sc. Mršić-Pelčić Jasenka, dr. med. [172]				
30.11.2026				
		S3 Antipsychotic Agents & Lithium; Antidepressant Agents: • P05 (08:30 - 12:00) [238] ◦ Group I		
doc. dr. sc. Dolenec Petra, dipl. ing. biol., prof. biol. [238]				
01.12.2026				
		S3 Antipsychotic Agents & Lithium; Antidepressant Agents: • P04 (12:15 - 16:00) [238] ◦ Group II		

doc. dr. sc. Dolenec Petra, dipl. ing. biol., prof. biol. [238]				
02.12.2026				
L9 Sedative-Hypnotic Drugs; Anxiolytics; Antiseizure Drug: • P09 - NASTAVA NA ENGLESKOM JEZIKU (08:15 - 11:00) [235] ◦ P_371				
prof. dr. sc. Vitezić Dinko, dr. med. [235]				
07.12.2026				
		S4 General Anesthetics; Local Anesthetics: • P09 - NASTAVA NA ENGLESKOM JEZIKU (08:00 - 12:00) [1545] ◦ Group I		
dr. sc. Gržeta Krpan Nika, mag. bioteh. in med. [1545]				
08.12.2026				
		S4 General Anesthetics; Local Anesthetics: • P07 (12:15 - 16:00) [1545] ◦ Group II		
dr. sc. Gržeta Krpan Nika, mag. bioteh. in med. [1545]				
14.12.2026				
		S5 Drugs Used in Asthma and Chronic Obstructive Pulmonary Disease; Histamine: H1-Receptor Antagonists: • P07 (08:00 - 12:00) [1898] ◦ Group I		
Illich Iva, mag. sanit. ing. [1898]				
15.12.2026				
		S5 Drugs Used in Asthma and Chronic Obstructive Pulmonary Disease; Histamine: H1-Receptor Antagonists: • P15 - VIJEĆNICA (12:15 - 16:00) [1898] ◦ Group II		
Illich Iva, mag. sanit. ing. [1898]				
11.01.2027				
		S6 Drugs Used in Disorders of Coagulation; Agents Used in Cytopenias; Hematopoietic Growth Factors: • P15 - VIJEĆNICA (08:15 - 12:00) [1545] ◦ Group I		

dr. sc. Gržeta Krpan Nika, mag. bioteh. in med. [1545]				
12.01.2027				
		S6 Drugs Used in Disorders of Coagulation; Agents Used in Cytopenias; Hematopoietic Growth Factors: • P09 - NASTAVA NA ENGLESKOM JEZIKU (12:15 - 16:00) [1545] ◦ Group II		
dr. sc. Gržeta Krpan Nika, mag. bioteh. in med. [1545]				
18.01.2027				
		S7 Diuretics; Drugs for the treatment of arterial hypertension: • ONLINE (08:15 - 12:00) [233] ◦ Group I		
prof. dr. sc. Pilipović Kristina, dr. med. [233]				
19.01.2027				
		S7 Diuretics; Drugs for the treatment of arterial hypertension: • ONLINE (12:00 - 16:00) [233] ◦ Group II		
prof. dr. sc. Pilipović Kristina, dr. med. [233]				
25.01.2027				
		S8 Drugs Used in Heart Failure; Agents Used in Cardiac Arrhythmias: • P07 (08:00 - 12:00) [233] ◦ Group I		
prof. dr. sc. Pilipović Kristina, dr. med. [233]				
26.01.2027				
		S8 Drugs Used in Heart Failure; Agents Used in Cardiac Arrhythmias: • P09 - NASTAVA NA ENGLESKOM JEZIKU (12:15 - 16:00) [233] ◦ Group II		
prof. dr. sc. Pilipović Kristina, dr. med. [233]				
02.03.2027				
		S9 Vasodilatators & the Treatment of Angina Pectoris; Agents Used in Dyslipidemia: • P06 (08:00 - 12:00) [236] [234] ◦ Group I • P07 (13:00 - 17:00) [236] ◦ Group II		
doc. dr. sc. Janković Tamara, dipl. sanit. ing. [234] · doc. dr. sc. Rajič Bumber Jelena, dipl. ing. biol. [236]				
09.03.2027				

		S10 Hypothalamic & Pituitary Hormones; Thyroid & Antithyroid Drugs; Adrenocorticosteroids & Adrenocortical Antagonists:
		• P07 (08:00 - 12:00) [234]
		  ◦ Group I
		• P09 - NASTAVA NA ENGLESKOM JEZIKU (12:00 - 16:00) [234]
		  ◦ Group II		

doc. dr. sc. Janković Tamara, dipl. sanit. ing. [234]				
16.03.2027				

		S11 The Gonadal Hormones/Inhibitors; Agents that Affect Bone Mineral Homeostasis:
		• P04 (08:00 - 12:00) [2838]
		  ◦ Group I
		• P07 (13:00 - 17:00) [2838]
		  ◦ Group II		

Mežnarić Silvestar, mag. sanit. ing. [2838]				
23.03.2027				

		S12 Pancreatic Hormones & Antidiabetic Drugs; Drugs Used in the Treatment of Gastrointestinal Diseases:
		• P06 (08:00 - 12:00) [1545]
		  ◦ Group I
		• P07 (13:00 - 18:00) [236]
		  ◦ Group II		

dr. sc. Gržeta Krpan Nika, mag. bioteh. in med. [1545] · doc. dr. sc. Rajič Bumber Jelena, dipl. ing. biol. [236]				
30.03.2027				

		S13 Beta-Lactam and Other Cell Wall- & Membrane-Active Antibiotics; Tetracyclines, Macrolides, Clindamycin, Chloramphenicol, Streptogramins, & Oxazolidinones; Aminoglycosides & Spectinomycin; Sulfonamides, Trimethoprim & Quinolones Antimycobacterial Drugs:
		• ONLINE (08:00 - 12:00) [236]
		  ◦ Group I
		• P01 (13:00 - 18:00) [236]
		  ◦ Group II		

doc. dr. sc. Rajič Bumber Jelena, dipl. ing. biol. [236]				
06.04.2027				

		S14 Antifungal Agents; Antiviral Agents; Antiprotozoal Drugs; Clinical Pharmacology of the Antihelminthic Drugs Miscellaneous Antimicrobial Agents; Disinfectants, Antiseptics, & Sterilants: • P07 (08:00 - 12:00) [238] ◦ Group I • P09 - NASTAVA NA ENGLESKOM JEZIKU (13:00 - 18:00) [238] ◦ Group II		
doc. dr. sc. Dolenec Petra, dipl. ing. biol., prof. biol. [238]				
13.04.2027				
		S16 Vaccines; Immune Globulins and Other Complex Biologic Products; Immunopharmacology (Biological Therapy and Development of Modern Drugs): • P06 (08:00 - 12:00) [1545] ◦ Group I • P05 (13:00 - 18:00) [1545] ◦ Group II		
dr. sc. Gržeta Krpan Nika, mag. bioteh. in med. [1545]				
20.04.2027				
		S15 Drugs for the Treatment of Malignant Diseases (Cancer Chemotherapy and Targeted Antitumor Agents): • P15 - VIJEĆNICA (08:00 - 12:00) [241] ◦ Group I • P07 (13:15 - 17:00) [241] ◦ Group II		
izv. prof. dr. sc. Skelin Marko, mag. pharm. [241]				
27.04.2027				
		S17 Over-the-Counter drugs; Dietary Supplements; Herbal Remedies; Homeopathic Remedies: • P15 - VIJEĆNICA (08:00 - 12:00) [234] ◦ Group I • P07 (13:00 - 18:00) [234] ◦ Group II		
doc. dr. sc. Janković Tamara, dipl. sanit. ing. [234]				
04.05.2027				

	P2 Pharmacography: Drug Formulations (Pharmaceutical Formulations); Pharmaceutical Formulations as Systems for Drug Administration; General Drug Prescription Guidelines; Prescribing ”Apothecary” and Galenic Preparations: • P15 - VIJEĆNICA (08:00 - 12:00) [233] ◦ Group I • P15 - VIJEĆNICA (13:15 - 17:00) [233] ◦ Group II			
prof. dr. sc. Pilipović Kristina, dr. med. [233]				
11.05.2027				
	P3 Pharmacography: Prescribing Finished Drug Products: • P06 (08:00 - 12:00) [233] ◦ Group I • P09 - NASTAVA NA ENGLESKOM JEZIKU (13:15 - 17:00) [233] ◦ Group II			
prof. dr. sc. Pilipović Kristina, dr. med. [233]				

Popis predavanja, seminara i vježbi:

PREDAVANJA (TEMA)	Broj sati	Mjesto održavanja
L1 Introductory Lecture; Pharmacology – Disciplines; Nature, development and regulation of drugs; Drug Nomenclature	3	P06
L2 Transfer of Drugs Across Cell Membranes; Drug Administration, Absorption and Distribution	3	P05
L3 Biotransformation and Elimination of Drugs; Pharmacogenomics	3	P15 - VIJEĆNICA
L4 Drugs and Organism Characteristics Affecting Drug Activity; Allergic and Idiosyncratic Reactions	3	P15 - VIJEĆNICA
L5 Adrenoreceptor Agonists and Sympathomimetic Drugs; Adrenoreceptor Antagonist Drugs	3	P02
L6 Nonsteroidal Anti-Inflammatory Drugs, Disease-Modifying Antirheumatic Drugs, Nonopioid Analgesics, & Drugs Used in Gout	3	P01
L7 Opioid Agonists and Antagonists	3	P15 - VIJEĆNICA
L8 Pharmacology of Migraine, ADHD and Narcolepsy; Treatment of Neurodegenerative Diseases (Alzheimer's and Parkinson's Disease); Treatment of Multiple Sclerosis	3	ONLINE
L9 Sedative-Hypnotic Drugs; Anxiolytics; Antiseizure Drug	3	P09 - NASTAVA NA ENGLESKOM JEZIKU
L10 Drugs of Abuse	3	P01

VJEŽBE (TEMA)	Broj sati	Mjesto održavanja
P1 Pharmacological receptors and pharmacodynamics; Pharmacokinetics and pharmacodynamics: rational dosing and time course of drug effect	5	P15 - VIJEĆNICA

P2 Pharmacography: Drug Formulations (Pharmaceutical Formulations); Pharmaceutical Formulations as Systems for Drug Administration; General Drug Prescription Guidelines; Prescribing ”Apothecary” and Galenic Preparations	5	P15 - VIJEĆNICA
P3 Pharmacography: Prescribing Finished Drug Products	5	P06 P09 - NASTAVA NA ENGLESKOM JEZIKU

SEMINARI (TEMA)	Broj sati	Mjesto održavanja
S1 Cholinoceptor-Activating & Cholinesterase-Inhibiting Drugs; Cholinoceptor-Blocking Drugs; Skeletal Muscle Relaxants	5	P04 P15 - VIJEĆNICA
S2 Adrenoceptor Agonists & Sympathomimetic Drugs, Adrenoceptor Antagonist Drugs	5	P06
S3 Antipsychotic Agents & Lithium; Antidepressant Agents	5	P04 P05
S4 General Anesthetics; Local Anesthetics	5	P07 P09 - NASTAVA NA ENGLESKOM JEZIKU
S5 Drugs Used in Asthma and Chronic Obstructive Pulmonary Disease; Histamine: H1-Receptor Antagonists	5	P07 P15 - VIJEĆNICA
S6 Drugs Used in Disorders of Coagulation; Agents Used in Cytopenias; Hematopoietic Growth Factors	5	P09 - NASTAVA NA ENGLESKOM JEZIKU P15 - VIJEĆNICA
S7 Diuretics; Drugs for the treatment of arterial hypertension	5	ONLINE
S8 Drugs Used in Heart Failure; Agents Used in Cardiac Arrhythmias	5	P07 P09 - NASTAVA NA ENGLESKOM JEZIKU
S9 Vasodilatators & the Treatment of Angina Pectoris; Agents Used in Dyslipidemia	5	P06 P07
S10 Hypothalamic & Pituitary Hormones; Thyroid & Antithyroid Drugs; Adrenocorticosteroids & Adrenocortical Antagonists	5	P07 P09 - NASTAVA NA ENGLESKOM JEZIKU
S11 The Gonadal Hormones/Inhibitors; Agents that Affect Bone Mineral Homeostasis	5	P04 P07
S12 Pancreatic Hormones & Antidiabetic Drugs; Drugs Used in the Treatment of Gastrointestinal Diseases	5	P06 P07
S13 Beta-Lactam and Other Cell Wall- & Membrane-Active Antibiotics; Tetracyclines, Macrolides, Clindamycin, Chloramphenicol, Streptogramins, & Oxazolidinones; Aminoglycosides & Spectinomycin; Sulfonamides, Trimethoprim & Quinolones Antimycobacterial Drugs	5	ONLINE P01
S14 Antifungal Agents; Antiviral Agents; Antiprotozoal Drugs; Clinical Pharmacology of the Antihelminthic Drugs Miscellaneous Antimicrobial Agents; Disinfectants, Antiseptics, & Sterilants	5	P07 P09 - NASTAVA NA ENGLESKOM JEZIKU
S15 Drugs for the Treatment of Malignant Diseases (Cancer Chemotherapy and Targeted Antitumor Agents)	5	P07 P15 - VIJEĆNICA
S16 Vaccines; Immune Globulins and Other Complex Biologic Products; Immunopharmacology (Biological Therapy and Development of Modern Drugs)	5	P05 P06
S17 Over-the-Counter drugs; Dietary Supplements; Herbal Remedies; Homeopathic Remedies	5	P07 P15 - VIJEĆNICA

SEMINARSKE VJEŽBE (TEMA)	Broj sati	Mjesto održavanja

SEMINAR-PRACTICAL: Diuretic Agents; Antihypertensive Agents	5	

KOLOKVIJI (TEMA)	Broj sati	Mjesto održavanja
Partial exam I	1	
Partial exam II	1	
Partial exam III	1	

ISPITNI TERMINI (završni ispit):