


Volodymyr GELMBOLDT
"29" august 2024 year

CALENDAR - THEMATIC PLAN OF PRACTICAL CLASSES
the course " Pharmaceutical Chemistry " for the fourth-year students
International Faculty in 2024-2025 academic year

No	Study of subject and content	The amount in hours	Group	Who teaches	Equipment classes	Date	Place of classes
1	2	3	4	5	6	7	8
1.	Means that stimulate receptors of afferent nerve fibers. <i>Antacids, enveloping and binding agents: Aluminum hydroxide, Magnesium oxide, Basic magnesium carbonate, Basic bismuth nitrate</i> <i>Adsorbents: Activated carbon.</i>	2	4-5	Tetiana LOZHYCHEVSKA Iryna LYTVYNCHUK	The visual material	according to the timetable	Department of Pharm.Chem.
2.	Means that stimulate receptors of afferent nerve fibers. <i>Expectorants: Terpene hydrate, Sodium benzoate, Acetylcysteine</i> <i>Irritants: Menthol racemic, Validol</i> <i>Laboratory work: Analysis of the substance Sodium benzoate.</i>	2	4-5	Tetiana LOZHYCHEVSKA Iryna LYTVYNCHUK	The visual material	according to the timetable	Department of Pharm.Chem.
3.	Means that reduce the sensitivity of afferent nerve fibers. Means for local anesthesia. <i>Esters of p-aminobenzoic acid: Benzocaine, Procaine hydrochloride</i> <i>Acetanilide derivatives: Lidocaine hydrochloride</i> <i>Arylamides of piperidinecarboxylic acids: Bupivacaine hydrochloride, Articaine hydrochloride.</i>	2	4-5	Tetiana LOZHYCHEVSKA Iryna LYTVYNCHUK	The visual material	according to the timetable	Department of Pharm.Chem.
4.	Means affecting the efferent nervous system. Means acting on cholinergic processes. Means acting on cholinergic receptors. <i>Cholinomimetics: Pilocarpine hydrochloride</i> <i>Anticholinesterase medicines of reversible action: Neostigmine methylsulfate</i> <i>Irreversible anticholinesterase medicines: Armin.</i>	2	4-5	Tetiana LOZHYCHEVSKA Iryna LYTVYNCHUK	The visual material	according to the timetable	Department of Pharm.Chem.
5.	Means affecting the efferent nervous system. Means acting on cholinergic processes. Cholinergic blockers (cholinolytics) <i>m-Cholinoblockers: Atropine sulfate, Scopolamine hydrobromide, Platyphylline hydrotartrate</i> <i>n-Cholinoblockers: Pachycarpine hydroiodide, Hexamethonium benzosulfonate.</i>	2	4-5	Tetiana LOZHYCHEVSKA Iryna LYTVYNCHUK	The visual material	according to the timetable	Department of Pharm.Chem.

6.	Means acting mainly on adrenergic processes. <i>Adrenomimetics: Epinephrine, Norepinephrine, Phenylephrine hydrochloride, Ephedrine hydrochloride, Naphazoline nitrate, Clonidine hydrochloride, Salbutamol</i> <i>Adrenoblockers (adrenolytics): Propranolol hydrochloride, Atenolol.</i>	2	4-5	Tetiana LOZHYCHEVSKA Iryna LYTVYNCHUK	The visual material	according to the timetable	Department of Pharm.Chem.
7.	Cardiotonic means. <i>Cardiac glycosides: Digoxin</i> <i>Non-glycoside cardiotonic medicines: dopamine, dobutamine, amrinone.</i> Solving situational and test tasks on the pharmaceutical analysis of Agents that stimulate receptors of afferent nerve fibers, Agents that affect the efferent nervous system, Agents that act mainly on adrenergic processes, Cardiotonic agents.	2	4-5	Tetiana LOZHYCHEVSKA Iryna LYTVYNCHUK	The visual material	according to the timetable	Department of Pharm.Chem.
8.	<i>Antiarrhythmic medicines.</i> <i>Procainamide hydrochloride, Amiodarone.</i>	2	4-5	Tetiana LOZHYCHEVSKA Iryna LYTVYNCHUK	The visual material	according to the timetable	Department of Pharm.Chem.
9.	Means that improve blood supply to organs and tissues. <i>Nitrovasodilators: Glycerin trinitrate solution, Pentaerythritol tetranitrate, Erinit.</i>	2	4-5	Tetiana LOZHYCHEVSKA Iryna LYTVYNCHUK	The visual material	according to the	Department of Pharm.Chem.
10.	Antagonists of calcium ions. <i>Nifedipine, Verapamil hydrochloride, Amlodipine</i> <i>Activators of potassium channels. Minoxidil, Diazoxide.</i>	2	4-5	Tetiana LOZHYCHEVSKA Iryna LYTVYNCHUK	The visual material	according to the timetable	Department of Pharm.Chem.
11.	Agents affecting the renin-angiotensin system. Hypotensive (antihypertensive) medicines. <i>Angiotensin-converting enzyme (ACE) inhibitors: Captopril, Enalapril maleate</i> <i>Antispasmodics: Papaverine hydrochloride, Drotaverine hydrochloride,</i> <i>Dibazol Laboratory work: Analysis of Dibazol hydrochloride.</i>	2	4-5	Tetiana LOZHYCHEVSKA Iryna LYTVYNCHUK	The visual material	according to the timetable	Department of Pharm.Chem.
12.	Hypertensive medicines. <i>Adrenaline tartrate, norepinephrine hydrotartrate, mesaton</i>	2	4-5	Tetiana LOZHYCHEVSKA Iryna LYTVYNCHUK	The visual material	according to the timetable	Department of Pharm.Chem.
13.	Angioprotectors. Antioxidants. Ascorbic acid, Rutin, Nicotinic acid, Tocopherol acetate, Retinol acetate <i>Laboratory work: Analysis of ascorbic acid.</i>	2	4-5	Tetiana LOZHYCHEVSKA Iryna LYTVYNCHUK	The visual material	according to the timetable	Department of Pharm.Chem.
14.	Solving situational and test tasks on the pharmaceutical analysis of antiarrhythmic agents, agents that improve blood supply to organs and tissues, calcium ion antagonists, agents affecting the renin-angiotensin system, hypotensive (antihypertensive) agents, hypertensive agents, angioprotectors, and antioxidants.	2	4-5	Tetiana LOZHYCHEVSKA Iryna LYTVYNCHUK	The visual material	according to the timetable	Department of Pharm.Chem.

15.	<i>Hypolipidemic agents. Antiatherosclerotic medicines. Lovastatin, Simvastatin, Atorvastatin.</i>	2	4-5	Tetiana LOZHYCHEVSKA Iryna LYTVYNCHUK	The visual material	according to the timetable	Department of Pharm.Chem.
16.	<i>Diuretics. Saluretics: chlorothiazide, hydrochlorothiazide, furosemide, indapamide, ethacrynic acid Aldosterone antagonists (potassium sparing): Spironolactone.</i>	2	4-5	Tetiana LOZHYCHEVSKA Iryna LYTVYNCHUK	The visual material	according to the timetable	Department of Pharm.Chem.
17.	<i>Diuretics. Osmotic diuretics: Potassium acetate, Mannitol, Urea, Ammonium chloride Diuretics - xanthine derivatives: Euphylline, Theophylline, Theobromine Laboratory work: Analysis of Euphilin solution 2.4%.</i>	2	4-5	Tetiana LOZHYCHEVSKA Iryna LYTVYNCHUK	The visual material	according to the timetable	Department of Pharm.Chem.
18.	<i>Agents affecting platelet aggregation and blood coagulation. Antiplatelet agents: Acetylsalicylic acid Anticoagulants: Neodicumarin, Heparin.</i>	2	4-5	Tetiana LOZHYCHEVSKA Iryna LYTVYNCHUK	The visual material	according to the timetable	Department of Pharm.Chem.
19.	<i>Agents affecting platelet aggregation and blood coagulation. Hemostatics: Vikasol Antifibrinolytics: Aminocaproic acid Laboratory work: Analysis of acetylsalicylic acid.</i>	2	4-5	Tetiana LOZHYCHEVSKA Iryna LYTVYNCHUK	The visual material	according to the timetable	Department of Pharm.Chem.
20.	<i>Solving situational and test tasks on the pharmaceutical analysis of hypolipidemic agents, antiatherosclerotic agents, diuretic agents, agents affecting platelet aggregation and blood coagulation.</i>	2	4-5	Tetiana LOZHYCHEVSKA Iryna LYTVYNCHUK	The visual material	according to the timetable	Department of Pharm.Chem.
21.	<i>Antiseptic and disinfectants. Halogens and halogen-containing products: Chloramine, Iodine, Alcohol iodine solution 5, 10%, Triiodomethane (Iodoform). Oxidizing agents: Hydrogen peroxide solution 3.30%, Potassium permanganate Laboratory work: Analysis of hydrogen peroxide solution 3%.</i>	2	4-5	Tetiana LOZHYCHEVSKA Iryna LYTVYNCHUK	The visual material	according to the timetable	Department of Pharm.Chem.
22.	<i>Antiseptic and disinfectants. Acids and bases: Benzoic acid, Salicylic acid, Boric acid, Sodium tetraborate. Aldehydes: Formaldehyde solution 35% Alcohols: Ethanol 96% Laboratory work: Analysis of the substance Benzoic acid.</i>	2	4-5	Tetiana LOZHYCHEVSKA Iryna LYTVYNCHUK	The visual material	according to the timetable	Department of Pharm.Chem.
23.	<i>Antiseptic and disinfectants. Salts of heavy metals: Argentum nitrate, Copper sulfate pentahydrate, Zinc oxide, Zinc sulfate heptahydrate Phenols: Phenol, Resorcinol, Phenylsalicylate Dyes: Ethacridine lactate Laboratory work: Analysis of the substance Cuprum sulfate pentahydrate.</i>	2	4-5	Tetiana LOZHYCHEVSKA Iryna LYTVYNCHUK	The visual material	according to the timetable	Department of Pharm.Chem.

24.	Solving situational and test tasks on the pharmaceutical analysis of antiseptics and disinfectants. <i>Laboratory work: Analysis of the substance Resorcinol</i>	2	4-5	Tetiana LOZHYCHEVSKA Iryna LYTVYNCHUK	The visual material	according to the timetable	Department of Pharm.Chem.
25.	<i>Antibiotics of heterocyclic structure. β-lactamase inhibitors. Penicillins. Cephalosporins.</i>	2	4-5	Tetiana LOZHYCHEVSKA Iryna LYTVYNCHUK	The visual material	according to the timetable	Department of Pharm.Chem.
26.	<i>Tetracycline and macrolide antibiotics, aromatic series. Tetracyclines. Macrolides: Erythromycin. Antibiotics of the aromatic series: Levomycesin, Levomycesin stearate, Levomycesin succinate soluble.</i>	2	4-5	Tetiana LOZHYCHEVSKA Iryna LYTVYNCHUK	The visual material	according to the timetable	Department of Pharm.Chem.
27.	Antibiotics of the aminoglycoside structure, amphenicols, other groups of antibiotics. <i>Lincomycins. Antibiotics - aminoglycosides: Streptomycin sulfate, Kanamycin monosulfate, Gentamicin sulfate</i> <i>Derivatives of 8-oxyquinoline and nitrofuran.</i> <i>Derivatives of 8-hydroxyquinoline: Nitroxoline</i> <i>Nitrofuran derivatives: Nitrofur, Nitrofurantoin, Furazolidone</i> <i>Laboratory work: Analysis of Nitrofur substance.</i>	2	4-5	Tetiana LOZHYCHEVSKA Iryna LYTVYNCHUK	The visual material	according to the timetable	Department of Pharm.Chem.
28.	<i>Derivatives of sulfanilic acid amides. General characteristics. Sulfanilamides: Sulfanilamide, Sodium Sulfacetamide (Albucid), Sulphathiazole (Norsulfasol), Phthalylsulfathiazole (Fthalazol).</i>	2	4-5	Tetiana LOZHYCHEVSKA Iryna LYTVYNCHUK	The visual material	according to the timetable	Department of Pharm.Chem.
29.	Antituberculosis medicines <i>Derivatives of isonicotinic acid hydrazide: Isoniazid, Phtivazid</i> <i>Derivatives of p-aminosalicylic acid: Sodium paraaminosalicylate</i> <i>Laboratory work: Analysis of Isoniazid.</i>	2	4-5	Tetiana LOZHYCHEVSKA Iryna LYTVYNCHUK	The visual material	according to the timetable	Department of Pharm.Chem.
30.	<i>Derivatives of naphthyridine and quinolonecarboxylic acids. Ofloxacin, Norfloxacin, Ciprofloxacin hydrochloride, Lomefloxacin hydrochloride.</i> Solving situational and test tasks on the pharmaceutical analysis of Antibiotics, 8-hydroxyquinoline derivatives, Nitrofuran derivatives, Sulfanilamides, Antituberculosis drugs.	2	4-5	Tetiana LOZHYCHEVSKA Iryna LYTVYNCHUK	The visual material	according to the timetable	Department of Pharm.Chem.
Total		60					

**The head of the educational part
of the Department of Pharmaceutical Chemistry
and Drug Technology**



Oleksii NIKITIN