

**EDUCATIONAL INSTITUTION
«BELARUSIAN STATE MEDICAL UNIVERSITY»**

THE DEPARTMENT OF PHARMACEUTICAL TECHNOLOGY

Approved at the session of the department
Protocol №1 of August 31, 2020

**THEMATIC PLAN
OF PRACTICAL LESSONS FOR EDUCATIONAL DISCIPLINE
«CHEMIST'S TECHNOLOGY OF MEDICINES»
FULL-TIME EDUCATION FORM OF TRAINING
5 semester 2020-2021**

№	Тема	Дата
1.	Introductory lesson. Rules of work in the training laboratory. Safety precautions. Rules for formalization of the diary on laboratory and practical exercises. Regulation of quality control, types of quality control of medicines in chemist's shop, rules for the filling in the passport for written control (PWC). Uniform rules for the formulation of medicines manufactured in chemist's shop.	07.09.2020
2.	State regulation of pharmaceutical manufacturing of medicines. The right to manufacturing medicines. Regulation of the composition of medicines. The structure of the recipe, the rules for prescribing and dispensing of extemporal medicines. Sanitary conditions and safe working conditions in chemist's shop. Terms and Conditions of storage of medicines in chemist's shop: poisonous, narcotic, flammable, explosive, volatile, odoriferous and others.	14.09.2020
3.	Dosing operations by weight in the chemist's shop. Varieties and metrological characteristics of the scales used in chemist's shop. Rules of work with weights. Checking the sensitivity of the scales. Rules for working with weights. Dosing by mass of liquid substances.	21.09.2020
4.	Dosing operations by volume in chemist's shop. The structure of devices for dosing by volume and drops. Instruments graded "for filling" and "for pouring out". Dosing technique by volume. Calibration of non-standard empirical droplet.	28.09.2020
5.	Colloquium, test work. Dosage forms. Pharmaceutical substances, excipients and materials. State regulation of chemist's technology of medicines. Dosage by weight, volume and droplets.	05.10.2020
6.	Technology of powders. Pharmaceutical examination of prescription in the recipe. Calculations. Manufacturing of simple and complex powders from medicinal substances prescribed in equal and sharply differing amounts, with hard-to-break and light-weight substances. Quality assessment of powders.	12.10.2020
7.	Technology of powders. Manufacturing of powders with pharmaceutical substances of the list "A" and strong, narcotic and psychotropic substances. Dose check. Triturations.	19.10.2020
8.	Technology of powders. Manufacturing of powders with odorous, coloring substances and	26.10.2020
9.	extracts. Colloquium, test work. Technology of powders.	02.11.2020
10.	True solutions of low molecular weight of medicines in concentration by mass. Solutions of medicines on viscous and volatile solvents. Mass concentration of the solution: ways of designation in the recipe. Pharmaceutical examination of prescription in the recipe. Accounting physical and chemical properties of pharmaceutical substances and solvents. Calculations, rules of registration PWC. Manufacturing of solutions of pharmaceutical substances on viscous and volatile solvents.	09.11.2020
11.	Alcoholimetry: determination of concentration, dilution, strengthening and accounting ethyl alcohol. Solving problems, preparing binary water-alcohol solutions, measuring the concentration of solutions densitometric method.	16.11.2020
12.	True solutions of low molecular weight pharmaceutical substances with volume and mass-volume concentration. Dilution of standard pharmacopeia fluids (SPF). Doing exercises.	23.11.2020

	Manufacturing of solutions of solid medicinal substances in ethyl alcohol of different concentration, solutions of SPF.	
13.	True solutions of low molecular weight pharmaceutical substances with volume and mass-volume concentration. Aqueous solutions. Doing exercises. Manufacturing of aqueous solutions by dissolution of solid pharmaceutical substances. Accounting for the physical and chemical properties of the solvent, medicinal substances and excipients.	30.11.2020
14.	Making solutions with the help of a burette system. Manufacturing of concentrated solutions for the burette system, concentration control by refractometric method, calculations for dilution and strengthening of solutions. Doing exercises.	07.12.2020
15.	Manufacturing of medicines using concentrated solutions and in combination with dissolution of solids. Accounting for physico-chemical properties of pharmaceutical substances and dispersion medium.	14.12.2020
16.	Special cases of the technology of solutions of low-molecular medicinal substances. Drops for internal and external use (except for ophthalmic). Manufacturing of drops.	21.12.2020
17.	Technology of solutions with high-molecular compounds.	28.12.2020
18.	Technology of genuine solutions of low molecular weight pharmaceutical substances. Colloquium, test work. Credit	04.01.2021

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