

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

№	Тема	Дата
1.	Introduction to the academic discipline "Chemist's technology of medicines". Basic terms and definitions. Relationship with related disciplines. History of development. The main directions of state regulation of production of medicines. The right to manufacturing medicines. Normalization of the composition of medicines, the quality of raw materials, conditions of the technological process.	07.09.2020
2.	Dosage forms: characteristics, nomenclature. Classification by aggregate state, dosage, method of administration, biopharmaceutical, dispersological, and others.	14.09.2020
3.	Pharmaceutical substances, excipients and materials, containers and packaging means: quality requirements, regulatory documents, regulating quality, classification.	21.09.2020
4.	Technology of dosage forms with a solid dispersion medium. Powders: characteristics, classification, general manufacturing rules, quality assessment.	28.09.2020
5.	Private technology of powders.	05.10.2020
6.	Technology of dosage forms with a liquid dispersion medium. General characteristics of liquid dosage forms. Dispersive media: viscous and volatile, the field of application. Purified water: characteristics, application, methods of production.	12.10.2020
7.	The true solutions of medicinal substances. Application of the provisions of the general theory of dissolution to optimize the technology of solutions of medicinal substances.	19.10.2020
8.	The technology of true solutions of low molecular weight medicines in viscous and volatile solvents, manufactured in concentration by mass.	26.10.2020
9.	The technology of solutions of medicinal substances in volume concentration and mass-volume concentration. The concept of the coefficient of volume increase, the norms of permissible deviations of the total volume.	02.11.2020
10.	Special cases of technology solutions of medicines in chemist's shop. Standard pharmacopoeial fluids, diluting rules. Technology of drops for internal and external use (except for ophthalmic).	09.11.2020
11.	Technology of solutions of high-molecular compounds. Features of technology depending on the structure of molecules.	16.11.2020
12.	The technology of solutions of medicinal substances - protected colloids. Features of technology, depending on the composition of micelles. Principles and mechanisms of colloid protection.	23.11.2020
13.	Heterogeneous systems in the technology of liquid dosage forms. Stabilization of heterogeneous systems. Classification of surfactants used in the technology of suspensions and emulsions.	30.11.2020
14.	Suspensions as a dosage form. Classification, technology, quality assessment.	07.12.2020

	Emulsions as a dosage form. Classification, technology, quality assessment.	
15.	Technology of aquatic extracts from medicinal plant raw materials (MPRM). Theoretical bases of extraction. Features preparation of aquatic extracts from MPRM containing alkaloids, cardiac glycosides, essential oils, saponins, tannins, anthraglycosides, phenol glycosides, mucus and from extracts-concentrates.	14.12.2020
16.	Technology of dosage forms with elastic-ductile-viscous dispersion medium: characteristic, classification. Components of ointment and suppository basis.	21.12.2020
17.	Technology of ointments, pastes, liniments, gels, creams: general rules and special cases of manufacturing. Dosage forms for rectal and vaginal administration: characteristic.	28.12.2020
18.	Manufacturing of dosage forms in aseptic conditions. Making of aseptic working conditions in chemist's shop. Cleaning technologies.	04.01.2021
19.	Methods of sterilization in pharmacy technology of drugs. The concept of the Sterility Assurance Level (SAL).	11.01.2021

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