MINISTRY OF HIGHER EDUCATION, SCIENCE AND INNOVATION OF THE REPUBLIC OF UZBEKISTAN

MINISTRY OF HEALTH OF THE REPUBLIC OF UZBEKISTAN

TASHKENT MEDICAL ACADEMY

DEPARTMENT OF HEMATOLOGY, TRANSFUSIOLOGY AND LABORATORY WORK

«APPROVED»
Vice rector for academic affairs
_____ Sh.A. Boymuradov
_____ 2023

"PREPARATION OF BIOLOGICAL MATERIALS FOR LABORATORY TESTS"
SYLLABUS OF MODUL
(Elective science)

Field of education	510000 -	Health care
Direction of education:	60910200 -	General Medicine

Toshkent – 2023

DEPARTMENT OF HEMATOLOGY, TRANSFUSIOLOGY AND LABORATORY WORK

Course 3 of the Faculty of "General Medicine"

Syllabus from the module "Preparation of biological materials for laboratory tests"

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Full name of the module: **Preparation of biological materials for laboratory tests** Modul kodi: **PSPD2102**	Credit Number: 1	Modular transition period: Semester 5	ECTS value: 1
Educational areas:	60910200- General Medicine	Stage 3 students for groups	
Module duration	15 days		
Training hours	Total hours: 30 Of which: lecture-6 practical training-24		
Status of the training module	Elective science		
OTM name, address	Tashkent Medical Academy Tashkent City, Almazar district, Farabi-3 TMA 12 Building 6 floor.		
Department Name	Department of Hematology, transfusiology and laboratory work		
Information about the teachers of this course	Speaker: Kurbonova Z.Ch. Practical trainer:	E-mail: zumradkurbonova3@gmail.com	
	N.F.Nuriddinova	E-mail: abdurahimnadi@gmail.com	
Training time and place	from 11.00 am to 12.20	TTA multidisciplinary clinic 6th floor of Building 12.	
Module content	- increase the quality of analyzes by collecting, storing, observing the rules of transportation and properly preparing the biological material for laboratory tests. Depending on the type of laboratory research, the rules for collecting biological material may vary. Failure to comply with biomaterial Assembly rules can lead to the need to repeat the analysis or misinterpret the result.		
Prerequites	biology, human anatomy, biology, normal and pathological physiology		
Postrequisites	normal and pathological anatomy, topographic Anatomy and operative surgery, normal and pathological Physiology, Pharmacology, microbiology, neurology, radiology, field-military surgery.		
Purpose of the module	It consists in the formation of the foundations of molecular-genetic knowledge, which will be necessary in the study of medical-biological and clinical modules in students. To achieve this goal, it is necessary to form in students a theoretical and practical knowledge of living matter based on established molecular-genetic laws, in order to deeply understand the functional process of the genetic apparatus of Molecular, Cellular and organisms, that is, at the level of all systems of living.		
Module functions	Teaching students to prepare biological materials for laboratory tests, biomaterial properties, biomaterial acquisition, storage, transportation, and laboratory examination preparation processes for their professional study, and to prevent errors in the Preanalytical stage.		

Requirements for student knowledge, skills and qualifications on the module	***Student:*** • preanalytic stage in laboratory examination and errors in it; • blood extraction techniques, storage, transportation for general blood analysis; • blood extraction techniques, storage, transportation for biochemical blood analysis; • blood extraction technique, storage, transportation for blood analysis to check the blood clotting system; • blood extraction techniques, storage, transportation for blood analysis for immunoferment analysis; • Material extraction techniques for blood analysis for PZR, storage, transportation; • material extraction technique, storage, transportation for general forehead analysis; • material extraction technique, storage, transportation for forehead tests; • obtaining, storage, transportation of biological material for stool analysis; • material extraction technique, storage, transportation for sputum analysis; • material extraction technique, storage, transportation for liquor tests; • to have an idea of the acquisition, storage, transportation of biological material for exudate and transsudate analysis; (knowledge) • processes for preparing biological material for laboratory examination for general blood analysis. * processes for preparing biological material for laboratory examination for biochemical blood analysis. * processes for preparing biological material for laboratory examination to check the blood clotting system. * processes for preparing biological material for laboratory examination for immunoferment analysis. • Material extraction techniques for blood analysis for PZR, storage, transportation and laboratory examination preparation processes. • material extraction techniques, storage, transportation and laboratory examination preparation processes for general forehead analysis. • material extraction techniques, storage, transportation and laboratory examination preparation processes for forehead tests. • processes of obtaining, storage, transportation and preparation for laboratory examination of biological material for stool analysis. • material extraction techniques for sputum analysis, storage, transportation and laboratory examination preparation processes. • material extraction techniques for liquor tests, storage, transportation and laboratory examination preparation processes. • be able to know and use the processes of obtaining, storing, transporting and preparing the biological material for exudate and transudate analysis; (skill) • venous vein blood extraction technique; • must have finger blood extraction technique skills. (qualification).
Teaching methods	Lecture, practical classes
Supply	Videos, multimedia and teacher computer programs, new technologies in teaching methodology, request theoretical knowledge on topics are used; independent work, individual and group presentations, preparation of tasks assigned to the house, writing abstracts, tests, situational issues, etc.

Recommended lecture sessions:

№	Lecture topics	hours
1	Theme 1. Preanalytical stage in laboratory examination and errors in it. Processes of obtaining, storing, transporting and preparing biological material for laboratory examination for blood analysis.	2
2	Theme 2. Processes of obtaining, storing, transporting and preparing biological material for laboratory analysis. Processes for obtaining, storing, transporting and preparing biological material for laboratory examination for fecal analysis.	2
3	Theme 3. Processes of obtaining, storage, transportation and preparation for laboratory examination of biological material for the analysis of sputum, liquorice, exudate and transsudate.	2
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Practical training:

№	Practical training topics	Soatlar hajmi
1	General blood analysis.	2
2	General urine analysis.	2
3	Unine tests	2
4	Checking the liquor.	2
5	Coagulogram indicators.	2
6	Biochemical blood test.	2
7	Methods of immunoferment blood tests.	2
8	Blood PCR testing methods.	2
9	Training nurses in laboratory examination	2
10	Sputum analysis.	2
11	Examination of exudate and transudate	2

12	General analysis of feces.	2
	Total	**24**

Head of the Department of Hematology, transfusiology and laboratory work, associate professor — **A.B. Saidov**

Dean of the faculty Pharmacy, Management, Medical Biology, Biomedical engineering and HQN — **S.U. Aliyev**

Compilers:

Associate Professor of Department of Hematology, transfusiology and laboratory work — **Z.Ch.Kurbonova**

Assistant of Department Hematology, transfusiology and laboratory work — **N.F.Nuriddinova**