

Practical lesson plan
In the discipline BIOLOGY for first year students in the specialty
31.05.01 – general medicine for the 2024/2025 academic year

№	Тема занятия	Часы
I semester		
1.	Microscope and rules of working with it, microscopy of biological objects. Making temporary wet microslides Ecological Issues I	4
2.	Environmental Issues II	4
3.	Cell cycle. Reproduction at the organismal level. Methods of asexual and sexual reproduction.	4
4.	Gametogenesis. Molecular basis of heredity (I).	4
5.	Molecular basis of heredity (II).	4
6.	Molecular basis of heredity (III). Introduction to genetics, patterns of independent inheritance (G. Mendel's laws).	4
7.	Interaction of allelic genes. Mechanisms of inheritance of blood groups in humans. Interaction of nonallelic genes.	
8.	Colloquium I. Reproduction. Genetics.	4
9.	Pleiotropic effect of the gene. Penetrance and expressivity. Linked inheritance of genes. Chromosome theory.	4
10.	Genetics of sex. Phenotypic variability.	4
11.	Genotypic variability.	4
12.	Human genetics I. Types of inheritance.	4
13.	Human Genetics II. Medical genetic counseling. Prevention of hereditary diseases.	4
14.	Human Genetics III. Hereditary human diseases.	4
15.	Colloquium II. Genetics	4
II semester		
16.	Type Flatworms (Plathelminthes). Class Flukes (Trematoda) – Part I.	2
17.	Type Flatworms (Plathelminthes). Class Flukes (Trematoda) – Part II.	2
18.	Type Flatworms (Plathelminthes). Class Tapeworms (Cestoidea) - Part I.	2
19.	Type Flatworms (Plathelminthes). Class Tapeworms (Cestoidea) - Part II.	2
20.	Type Roundworms (Nematelminthes). Class Actually roundworms (Nematoda) – Part I.	2
21.	Type Roundworms (Nematelminthes). Class Actually roundworms (Nematoda) – Part II.	2
22.	Colloquium on medical helminthology.	2
23.	Subkingdom Protozoa, Type Sarcomastigofora, Class Sarcodina; Type Apicomplex, Class Sporozoa.	2
24.	Subkingdom Protozoa, Phylum Sarcomastigofora., Class Flagellates (Flagellata); Type of Ciliates (Infusoria).	2
25.	Fundamentals of arachnoentomology. Phylum Arthropoda (Arthropoda), Class Arachnida (Arochnoidea).	2
26.	Phylum Arthropoda (Arthropoda), Class Insects (Insecta), Order Lice (Anoplura) and Order Fleas (Aphaniptera).	2
27.	Phylum Arthropods (Arthropoda), Class Insects (Insecta), Order Diptera (Diptera).	2
28.	Colloquium on medical protozoology and arachnoentomology.	2
29.	Phylogeny of the circulatory system in the Phylum Chordata.	2
30.	Colloquium on practical skills.	2
Hour		90

Head of the Department of Biology,
 Doctor of Medical Sciences, Professor  O.L. Kolesnikov