The discipline designation	**Parasitology**
Semester(s) in which the discipline is taught	6
Responsible teacher	Sanayeva Lola Shukurboyevna, biology sciences candidate, associate professor.
Language of education	Uzbek
Relation to the curriculum	elective
Study load (including contact hours, SRS)	Total workload: 120 h Contact hours – Lecture: 30 h. practical: 30 h. SsIW: 60 h.
ECTS	4
Prerequisites	Zoology, Botany, Human Anatomy and Physiology.
The aims of the discipline	The aime of the discipline is to develop knowledge about various types of parasitic animals, their morphophysiological characteristics, biology, significance in nature and in human life, measures for prevention and control of parasitic organisms Learning outcomes - determine the goals and objectives of parasitology, as well as the objects and subject of study of science; - explain the concepts of parasite and parasitism; -be able to name the types of parasitism, identify and characterize the hosts of parasites: primary, intermediate, obligate, reserve; - know the peculiarities of the organization of animals leading a parasitic lifestyle; -have an idea of the morphology and physiology of parasitic organisms of animals and humans; - to form ideas about vector-borne diseases and their varieties, features of the spread and course of vector-borne diseases; - highlight the distinctive features of the morphophysiology and development of representatives of individual systematic groups of parasitic animals; - compare the developmental biology and life cycles of various groups of parasitic organisms; - select appropriate methods of comparative analysis when studying the morphophysiology and development of representatives of individual systematic groups of parasitic animals; - recognize methods for determining species identity based on the morphophysiological characteristics of parasitic animals - classify parasites, recognize their belonging to systematic categories and determine the type of parasite; - assess the significance, distribution, pathogenic significance of parasitic organisms, consider measures for the treatment, control and prevention of parasitic animals; - introduce the types of parasitism, the types of parasite hosts; - have practical skills in working with biological objects and equipment, and a methodological approach and scientific worldview to biological processes; -draw objects of parasitology and their development cycles.
Contents of the	Content

lesson	1. Introduction to parasitology. 2. The concept of parasitism and parasites. Types of parasitism 3. Diseases caused by parasites. Natural focal diseases. Systematic position of parasites. General characteristics of parasitic protozoa. 4. Systematics of unicellular parasites. Parasitic pseudopods and flagellates. 5.Type Alveolate protozoa. Parasitic apicomplexans and ciliated. Parasitic myxosporidium, microsporidia 6. General characteristics and taxonomy of the supertype Worms. The concept of helminths. Flukes and monogeneans that parasitize humans and animals. 7.Tapeworms and cestodes, parasitic in humans and animals. 8. General characteristics and taxonomy of roundworms. Class Nematodes 9.Acanthocephals, leeches and parasitic mollusks 10. Helminthological study of animals, methods of collecting and identifying helminths 11.Type arthropods. Parasitic arthropods and arthropods are spreaders of diseases. Parasitic crustaceans. 12. General characteristics and taxonomy of Cheliceraceae. General characteristics of parasitic mites. 13. General characteristics and taxonomy of the superclass Insects or six-legged. Parasitic lice, lice and bedbugs. 14. Fleas and long-whiskered dipterans that parasitize humans and animals. 15. Short-whiskered dipterans that parasitize humans and animals.
Exam form	**Oral**
Training and examination requirements	To successfully master the disciplines of Parasitology, you must have full knowledge of theoretical and practical concepts related to parasitic organisms, the ability to correctly reflect the results of analysis, independent observation of the objects being studied, the creation and implementation of tasks given in current and intermediate forms of control, and pass the exam orally according to the final control. When creating IC questions, deviations from the content of the discipline program are not allowed. The bank of IC questions for each subject is discussed at the meeting and approved by the head of the department. When compiling IR tickets, the IR question bank is used; the number of questions in the ticket should be in a 50/50 ratio, depending on the content of classroom and independent learning. No later than 1 week before the start of the final control, tickets approved by the head of the department, enclosed in an envelope, are sealed by the dean's office and opened 5 minutes before the start of the exam in the presence of students. The student who has chosen the IC ticket is given 5-10 minutes to prepare and 10-15 minutes to answer IC questions orally. On average, 20 minutes are spent per student. When forming the composition of the oral examination commission, 1 commission member is approved for every 15 students. The student's IR grade is posted on the electronic platform on the same day. Student(s) who are dissatisfied with the IC results may submit a written or oral appeal within 24 hours of the publication of the IR results. Complaints submitted after 24 hours from the publication of the EC results will not be accepted. The teacher who taught the students in this subject is not involved in the process of conducting the exam and checking the students' answers.
References	1. Dadayev S. Laboratory training in the science of parasitology. Methodical guide for students majoring in biology at higher educational institutions. -

	Gulistan, 2019. 2. Dadaev S., Dadaeva D.S. Laboratory workshop on parasitology. Toolkit. - Tashkent, 2019. 3. Dadaev S.D., Solodovnikova O.G. Parasitology. Tutorial. - Tashkent, 2021. - 221 p. 4. Abdurakhmanova G., Dadyev S. Practical exercises in general parasitology. Study guide for graduate students of biology (zoology) specialty of higher educational institutions. - Tashkent, 2020, 282 p. 5. Korotova D.M. and others. Parasitology and invasive animal diseases: method. instructions for performing laboratory work for specialty 36.05.01 Veterinary Medicine. "Saratov State Agrarian University." - Saratov, 2015. - 242 p. 6. Sakharova E.Yu., Shcherbakova T.N. Fundamentals of medical parasitology: textbook. – Volgograd: VolgSMU Publishing House. 2018. – 348 p.
Scope of assessment criteria and procedure	**CURRENT CONTROL** **Purpose:** Determining and assessing the student's level of knowledge, practical skills, and competencies on course topics. **Instructions:** The student's activity in daily classes is assessed through the student's mastery of course topics, as well as constructively interpreting and analyzing the educational material, developing module-specific skills, acquiring practical skills (in terms of quality and the specified number) and competencies, solving problem situations aimed at applying professional practical skills, working in a team, preparing presentations, etc. **Current control form:** Activity in lessons Preparing educational materials Working with sources within the subject Using educational technologies Working in a team Preparing presentations Working with projects **INTERMEDIATE CONTROL** **Purpose:** Assessing the student's knowledge and practical skills and level of mastery of lecture material after completing the relevant section of the course. **Form and procedure of intermediate control:** Midterm examination is held during the semester during the training sessions after the completion of the relevant module of the curriculum of the subject. Midterm examination is held once in written form within the framework of this subject. Midterm examination questions cover all topics of the subject. **Independent learning:** **Purpose:** Independent learning is aimed at fully covering the content of this course, expanding the theoretical knowledge acquired, and establishing independent learning activities for students. **Form and procedure of independent education:** ndependent work assignments are completed in the form of an educational project, presentation, case study, problem solving, information search, digest, colloquium, essay, article, abstract, etc. Completed assignments for independent study are placed in the electronic system and checked based on the anti-plagiarism program and evaluated by the subject teacher. In this case, the uniqueness of the completed assignment should not be less than 60%, otherwise the assignment will not be accepted for assessment.

The number of independent work assignments, depending on the nature of the subject, should not be less than 3 for one subject (module).

Independent work assignments account for 60% of the points allocated for current and intermediate control.

Independent learning task 1: Preparation of project work based on independent learning topics

Independent learning task 2: Preparing sample video lessons based on specialized subject topics.

Independent learning task 3: Preparation of open lesson plans in specialized subjects using interactive methods.

Independent learning task 4: Analysis of educational normative documents for specialized subjects and preparation of presentations.

FINAL CONTROL

Purpose: The final examination is held at the end of the semester to determine the level of mastery of the student's theoretical knowledge and practical skills in the relevant subject. The final examination is held at a specified time according to the examination schedule created by the Registrar's Office on the electronic platform.

Requirements: The student must have passed the current control, intermediate control and independent learning assignments by the deadline for the final control type in the relevant subject.

A student who has not passed the current control, intermediate control and independent learning assignments, as well as who has received a score in the range of "0-29.9" for these assignments and control types, is not included in the final control type.

Also, a student who has missed 25 percent or more of the classroom hours allocated to a subject without a reason is excluded from this subject and is not included in the final control type and is considered not to have mastered the relevant credits in this subject.

A student who has not passed or was not included in the final control type and has received a score in the range of "0-29.9" for this type of control is considered to be an academic debtor.

Final control form: The final examination in this subject will be conducted in written form.

If the final examination is conducted in written form, the requirements for assessment must also be reflected.

Criteria for assessing student knowledge

5 stars	100 points		Evaluation criteria
5	90-100	Excel lent	When a student is considered to be able to make independent conclusions and decisions, think creatively, observe independently, apply the knowledge he has gained in practice, understand, know, express, and narrate the essence of the subject (subject), and have an idea about the subject (subject)
4	70-89,9	Good	When the student is considered to be able to observe independently, apply the knowledge he has gained in practice, understand, know, express, and narrate the essence of the subject (subject), and has an idea about the subject (subject)

	3	60-69,9	Satisfactory	When the student is found to be able to apply the knowledge he has gained in practice, understands, knows, can express, and narrate the essence of the subject (subject), and has an idea about the subject (subject)
	2	0-59,9	Unsatisfactory	When it is determined that the student has not mastered the science program, does not understand the essence of the science (subject), and does not have an idea about the science (subject)

Course evaluation criteria and procedure

Control type	**Total points allocated**	**Control (task) form**	**Distribution of points**	**Qualifying score**
Current control	30 points	System tasks	20 points (divided by the number of tasks)	18 points
		Student activity (in seminars, practical, laboratory classes)	10 points	
Intermediate control	20 points	Supervision: Written work	10 points	12 points
		System tasks	10 points (divided by the number of tasks)	
Final inspection	50 points	Written assignment (5 questions)	50 points (10 points per question)	30 points

** **Note:** 60% of the points allocated for current and intermediate control are allocated to independent work assignments. Independent work assignments are evaluated as system assignments through the electronic platform.*