

# **BIOLOGIYADAN DARSDAN TASHQARI MASHG'ULOTLARNI TASHKIL ETISH METODIKASI**

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**Annotatsiya:** Biologiyadan darsdan tashqari mashg'ulotlarni tashkil etish metodikasi" mavzusi asosida yozilgan. Biologiya fani tirik organizmlar tuzilishi va funksiyasining xilma-xilligi, ularning rivojlanishi va yashash muhiti bilan o'zaro munosabatini o'rganadi. bitiruv ishida darsning asosiy shakllari darsdan tashqari ishlarning xususiyatlari, biologiya xonasi va tirik tabiat burchagidagi darsdan tashqari ishlar, tabiatdagi darsdan tashqari ishlarning mazmun va mohiyati har tomonlama yoritib berilgan.

**Kalit so'zlar:** biologiya, ta'limning ustuvorligi, ta'limning demokratlashuvi, ta'limning insonparvarlashuvi, ta'limning ijtimoiylashuvi, ta'limning milliy yo'naltirilganligi, iqtidorli yoshlarni aniqlash.

## **METHODS OF ORGANIZING EXTRACURRICULAR ACTIVITIES IN BIOLOGY.**

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**Annotation:** "Methods of organizing extracurricular activities in biology." Biology is the study of the diversity of the structure and functions of living organisms, their development and their relationship with the environment. The main forms of the course in the final work are the features of extracurricular activities, extracurricular activities in the biology office and the corner of wildlife, the content and essence of extracurricular activities in nature.

**Key words:** biology, sustainability of education, democratization of education, humanization of taste, socialization of education, national orientation of education, production of talented youth.

## **МЕТОДИКА ОРГАНИЗАЦИИ ВНЕУЧЕБНОЙ РАБОТЫ ПО БИОЛОГИИ**

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**Аннотация:** «Методы организации внешкольной деятельности по биологии». Биология - это изучение разнообразия строения и функций живых организмов, их развития и их взаимоотношений с окружающей средой.

Основными формами курса в выпускной работе являются особенности внеклассных занятий, внеклассные занятия в кабинете биологии и уголке дикой природы, содержание и сущность внеклассных занятий на природе.

**Ключевые слова:** биология, устойчивость образования, демократизация образования, гуманизация вкуса, социализация образования, национальная направленность образования, производство талантливой молодежи.

It is known that each stage of development of the state and society is social, economic, scientific-technical, spiritual-educational and based on cultural needs, the historical and logical unity of didactics places specific state and social orders in front of the education system in accordance with methodological principles.

After the independence of our country, education has become a priority in the social sphere, The Law on Education and the National Program for Personnel Training, which are the methodological and theoretical basis for the introduction of continuing education, have fully developed the system of continuing education and adapted it to society, consciously selects educational and professional programs and then carefully masters them, creation of socio-political, legal, psychological-pedagogical and other conditions, government orders, such as educating citizens to feel responsible to society, the state, and the family.

Socio-economic, ideological, spiritual and educational changes in our society, created taking into account the principles of building a legal-democratic society The National Idea: Basic Concepts and Principles sets out the social orders of the education system.

- Based on the above considerations, the goals and objectives of teaching biology in higher education institutions are formed by the orders of this state and society.
- In teaching biology, the teacher is given the following tasks to perform these commands:
- Spiritual and moral education of students in the process of biological education, development and introduction of effective forms and methods of educational work;

- Use of innovative and information and communication technologies in the teaching of biological sciences
- Accelerate the teaching process in the teaching of biological sciences using a thematic system of preparation
- Ensuring the humanitarian orientation of biological education based on the rich spiritual and intellectual heritage of the people and universal values
- Development and introduction of a new generation of educational and methodological complexes of the biological education process and didactic support of the biological education process

To develop the spiritual and moral qualities of students at all stages and stages of biological education on the basis of the principles of national independence and the rich intellectual heritage of the people and the primacy of universal values. To inculcate national ideas and ideology in the minds and hearts of students in the process of biological education, to raise ideological education in educational institutions to the current level. Ensuring the integrity of students by integrating education and upbringing into the educational process, improving legal, economic, environmental and sanitary education and upbringing. It is necessary to deepen the ideological knowledge of future teachers. Based on these decisions, modern approaches to teaching biology in higher education have been developed:

Systematic approach to the process of teaching biological sciences;

Thematic approach to the process of teaching biological sciences;

Innovative approach to the teaching of biological sciences;

A student-centered approach to teaching biology;

Identifying the characteristics of these approaches is one of the most pressing issues in biology teaching methodology, each will be considered separately during the session. In order to successfully implement the above approaches, first of all, all academic disciplines in the higher

education system, in particular, it is necessary to define the principles and laws of teaching, which are the scientific and theoretical basis of the teaching process in the biological sciences.

In defining these principles and laws, it is necessary to analyze the basic principles of state policy in the field of education.

It is known that the basic principles of state policy in the field of education have a direct impact on the principles of operation of the system of continuing education and require them.

Radical reform of the education system in the Law of the Republic of Uzbekistan "On Education" and the "National Training Program", reconstruction, types of continuing education system, tasks for educational institutions, In addition to the implementation of the national model of training, the following principles of the system of continuing education are outlined:

Priority of education - education is a priority in our society. Therefore, the effective organization of the process of biological education is highly spiritual, creates the basis for the formation of an educated and potentially qualified person and competitive personnel.

Democratization of education is the humanization of pedagogical relations in the process of education and upbringing, effective selection of teaching methods based on the cooperation of teacher and student in the organization and management of the educational process.

Humanization of education is the effective organization of the educational process, taking into account the abilities of students and meeting their educational needs, prioritizing national and universal values, paving the way for the harmonization of human, social and environmental relations.

The socialization of education means the formation of students' conscious discipline, a sense of human dignity, high spirituality, behavior based on

social norms, an aesthetically rich worldview, culture and creative thinking.

The national direction of education is the integration of education with our national history, folk traditions and customs, Preserving and enriching the culture of the peoples of Uzbekistan, recognizing education as an important factor in national development, respecting the history and culture of other peoples.

The interdependence of education and upbringing leads to the formation of a person who is well-rounded, spiritually and morally mature, well-rounded, independent-minded, respectful of national values and traditions.

Identification of gifted youth - for gifted youth on the basis of stratification and individualization of the educational process<sup>1</sup> to create a consistent environment for them to receive fundamental and specialized education at the highest level of education.

The educational process in higher education should be considered as a whole system.

The teacher's activity in the classroom is considered as a pedagogical activity, it is aimed at conveying the content of education to the minds of students and, based on this content, uses the tools, methods and forms of teaching.

The activity of students, which prepares the ground for the study of the content of education recommended by the teacher, is their cognitive activity.

The content of education is selected based on the goals and objectives of the university, reflected in the standard curriculum for these courses.

In order to determine the level of mastery of the content of the curriculum by students, STS (State Test Standard) is organized in the academic

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<sup>1</sup> Tolipova J.O. Biologiyani o'qitishda innovatsion texnologiyalar.TDPI.,T.2013

disciplines. In this way, the content of education that the trained staff should receive is determined.

In the didactic literature, the content of higher education consists of 4 components:

- Knowledge - ideas, theories, laws, concepts and more.
- Work methods - skills and abilities
- Creative experience - independent and creative, logical, analytical and critical thinking skills;
- Value system

The above-mentioned components of the curriculum should be reflected in the curriculum developed for each course of the university and in the textbooks prepared accordingly.

In order to implement a thematic approach to the teaching of biological sciences in pedagogical higher education institutions, didactic literature was analyzed, the experience of advanced foreign countries was studied.

It should be noted that in pedagogical practice, the system of thematic teaching is based on themes, and there are two approaches to this system:

Approach 1. Take the curriculum as a topic from the educational institution curriculum and transfer it to sequential reading. This approach has been used as an experiment in the educational process in many higher education institutions of the country. The implementation of this approach was delayed due to the fact that the experimental process did not yield the expected results, taking into account the content of education, mental, physical and ergonomic capabilities of students.

Approach 2. Acceptance of a course section or department as a subject in the curriculum of an educational institution Teaching these courses on the basis of a thematic system. Transferring courses from the curriculum to a thematic system is a separate subject for each subject, meaning that each chapter of the curriculum is taught on a topic-by-topic basis.

The following are some of the benefits of using a topic system in teaching biology:

The use of science systems in the teaching of biological sciences prepares students for learning. According to Blum's taxonomy, setting learning goals for each lesson and giving them to students makes them the subject of their own learning activities and prepares them for effective work.

The use of science systems in the teaching of biological sciences is a standardized knowledge for students only by SS, skills will likely enable the training of competitive staff to meet the qualification requirements of pedagogical staff through the formation of general and specific competencies.

Defining learning objectives on the topics covered in the content, the development of control tasks in accordance with it enriches the content of didactic support of biological sciences, creates the basis for the development of science programs.

The teaching of biological sciences by subject and the establishment of appropriate controls allow students to accurately assess their level of mastery and to correct deficiencies in their work, to fill in and correct deficiencies in their knowledge.

The student-centered learning process, in turn, requires interactive teaching methods and innovative technologies. Interactive methods include problem solving, logical, independent work, ways to motivate and motivate students in teaching, and control and self-monitoring.

**Interactive** is derived from the English word interactive, which means to work together.

Interactivity is the interaction of a student with a teacher or a computer with a student to achieve the didactic objectives of the lesson. Interactive learning is primarily a dialogic learning in which all participants work together to solve problems through communication.

The essence of interactive learning is that in the learning process, all students become active participants in the learning process, they understand the problems being discussed, the course of events and happenings, understand the problem situations, seek solutions and recommend the most appropriate option.



The use of interactive methods in the learning process requires the organization and management of student interactions, in which students solve a common problem together, which is also important for each student. There is mutual understanding, cooperation and solidarity between them. Interactive methods do not allow a student to dominate the classroom.

When interactive methods are used, students gain the skills to think critically, analyze information sources and situations, solve complex problem situations, analyze ideas presented, draw valid conclusions, participate in discussions, and communicate with others.

Interactive teaching methods have the following features:

Communication, which is an essential human need, is applied at all stages of the learning process.

The learning process provides a wide range of opportunities for students to demonstrate their strengths, knowledge and talents.

A socio-psychologically favorable environment is created for students to work together in small groups, which prepares the ground for their gradual and effective participation in communication.

Students realize that in order to actively participate in communication, it is necessary not only to listen, but also to analyze what they hear, to think, to make their opinions reasonable and understandable.

In collaboration with students, they should be divided into small groups to complete assignments as required, analyze the results obtained, check their accuracy, present, and be recognized by other groups.

The group of active methods used in the learning process includes problem-based learning methods, logical methods, independent work methods, methods of motivating and justifying student activities, methods of control and self-control.

Active methods require active learning activities based on the analysis of individual objects, events and patterns in the process of creating problem situations, working with students in small groups and solving problems, activating skills and knowledge to find answers to complex questions.

Innovations in the higher education system introduced in the country are carried out in the following ways:

- Information and communication technologies - technological innovations;
- Technologies that update the content of the educational process, its course and activate the cognitive activity of students - pedagogical innovations;
- Modern economic mechanisms in the field of education - economic innovation;
- Modern structures in the field of education - organizational innovations;

It is known that the complex implementation of the above innovations in the educational process requires from the teacher not only certain methodological knowledge, skills and abilities, but also pedagogical skills.

The acquisition of modern methodological knowledge, skills and abilities of the teacher, as well as the availability of pedagogical skills (abilities) is the basis for the development of a well-rounded person in his pedagogical activity.

The following is the content of the educational process, its course and the technologies that activate the cognitive activity of students - pedagogical innovations.

In order to successfully use pedagogical technologies in the educational process, biology teachers must have special methodological knowledge and skills, have the necessary methodological training in pedagogical practice.

The term pedagogical technology is defined by each scholar who has studied the subject from his or her own perspective. A complete and clear definition of this concept has not yet been adopted.

The most accurate of these definitions is the one given by UNESCO.

Pedagogical technology is a set of systematic methods that allow the use of human potential and technical resources in the teaching and learning process in order to optimize the forms of teaching, to determine their interaction.

Human potential refers to a teacher's pedagogical and student learning activities, and technical resources refer to teaching methods and tools. In our opinion, pedagogical technology is the harmonious organization of pedagogical and student learning activities in the teaching and learning process in order to increase the effectiveness of the educational process, a set of systems that allow the use of effective teaching methods, tools and forms to activate these activities, to determine their interaction.

There are three levels of pedagogical technology:

General methodological degree. At the general pedagogical (general didactic, general education) level the general laws of pedagogical technology, conceptual bases, specific features of the organization and management of educational activity of the teacher and the student are developed.

At a specific methodological level, a particular subject is a set of teaching methods, tools, and forms used to inculcate the content of learning into the minds of students in order to achieve the goals and objectives of the course teaching process.

At the local (topic) level, a certain part of the educational process is a technology aimed at solving the specific didactic and educational purpose of this part.

One of the main problems of didactics is to activate students' knowledge and increase the effectiveness of teaching.

Activation of students' cognitive activity means the conscious need of students to acquire high motivation, knowledge and skills, high results and the emergence of behavior in accordance with social norms.

This type of activity does not always occur, but only due to the teacher's targeted pedagogical influence and the ability to create a favorable pedagogical-psychological environment. Targeted influence on the educational process and the creation of a favorable socio-psychological environment will depend on the pedagogical technologies used by the teacher.

Any technology developed in didactics serves to activate students' cognitive activity and increase the effectiveness of education, but in the following technologies, this issue is the main idea:

- Didactic game technologies.
- Problem-based learning technologies.
- Thematic learning technologies.
- Collaborative learning technology.
- Design technology.

In addition to the unique features of technologies that allow students to intensify their learning activities and increase the effectiveness of education, educator, developer, educator, guiding creative activity in the educational process, communicative, logical thinking, the formation of methods of mental activity, analysis of their activities, career guidance, correct naltish training, cooperation.

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