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## Methodical Training System of Undergraduate Students for Professional Activities

**Key words:** *methodic of teaching biology; professional competence; modules of the discipline; students' independent work; training-but-research work of students; students' results; teaching practice; optional courses.*

**Annotation:** *the article considers the principles of professional training of bachelors of natural-sciens faculty TSPU after Nizami, based on the subject - methods of teaching biology. The goal, objectives of the subject, structure and content of the discipline modules, the independent work contents are displayed. The content of other disciplines contributing to the methodological training of bachelors' improvement is also considered.*

The process of studying the methodology of teaching biology is aimed at the formation of a number of professional competencies, among which it should be noted: the ability of a graduate to implement curricula for basic and elective courses; apply modern methods and technologies, methods for diagnosing students' achievements; use the capabilities of the educational environment to form universal types of educational activities and ensure the quality of the educational process; organize cooperation of students; support the activity and initiative, independence of students; their creative abilities; develop modern educational technologies, etc (1, p. 128).

The presence of formed competencies shows the quality of bachelor training for future professional activities, and the teacher's qualification obtained by him implies that he has certain professional skills and abilities, so-called educational results.

The content of the discipline "Methods of teaching biology" is presented in the form of 7 modules: modules number 1, 2, 3 are a series of lectures; modules number 4, 5, 6, 7-seminar classes, in which bachelors get acquainted with private methods of teaching biology.

**Lectures.** Assume familiarity bachelors with the basic theoretical issues of discipline. The content of the lecture course is updated in the light of trends in the development and modernization of education in the country.

**Seminar classes.** Their goal is the study of private methods of teaching the sections "Plants", "Animals", "Human", "General Biology". In these classes, students become familiar with the content, methods and forms of teaching, learn how to make notes of lessons, different in content and didactic goals. In addition to written notes, students compile electronic presentations for some lessons, become familiar with electronic programs and books.

Of great importance in the methodical training of bachelors is familiarity with gaming technology, with the methodology for the preparation and conduct of didactic games. Students not only learn to compose games of various types, but also protect their work in the classroom.

In the study of biology, there is a “methodical piggy bank” made up of the best student work. It is especially in demand in the period of teaching practice.

At seminars, students are given the opportunity to conduct a fragment of the lesson: show experiments with plants, conduct laboratory work, compacted survey, biological dictation, explain the material using a school table, etc. Usually, students like this technique: they are happy to imitate a lesson when they join the role of a teacher, while the other students act as “schoolchildren”. Such a role-playing game not only activates the learning process, but also shows students all the weak points of their “teaching” better than any teacher's comments.

Particular importance is attached to acquaintance with a variety of pedagogical technologies (they are considered on the example of studying any topic): modular learning, learning technology in collaboration, project method, problem learning, block-lesson teaching system. Students not only study the theoretical aspects of the above-mentioned technologies, but also study themselves in some of them. Thus, the technology of learning in collaboration allows students to work in small groups on a given problem, study it together and report the results of their research to others (2, p. 220).

The most valuable educational and cultural-educational objects of Tashkent (museum of local lore, Botanical Garden, zoo) are actively involved in seminars on methods. Using the material base of these institutions, students develop the content of excursions, cards for students' independent work (3, p. 394).

**Independent work** of students contributes to the formation of skills and abilities that form the basis of the educational results of the graduate's professional competencies:

- definition of educational tasks of the material under study (sections, topics of the lesson); determination of the most effective ways and means of solving educational tasks;
- planning biology lessons based on the diagnosis of students' knowledge; compilation of tasks to control students' knowledge; determination of the most effective methods of knowledge control taking into account the specific objectives of the lesson;
- use in the educational process of optimal forms, methods and teaching methods; determining the most effective methods and techniques for a particular lesson or other form of training; selection and use in the learning process of various means of visualization;
- possession of a methodology for drawing up abstracts and conducting lessons of all types; methods of organizing all types of extracurricular activities (summer assignments, observations, experiments); information and communication technologies in the teaching of biology;
- development of biological games of various types;
- use of elements of modern pedagogical technologies when writing notes of lessons.

Independent work on the methodology of teaching biology is carried out in the following areas:

1. Writing abstracts of various types of lessons is a key aspect of students' independent work. Before doing this work, students receive detailed instructions, methodical sources. Work is performed at the initial stage in groups of 2 people, and then individually.
2. Preparation of electronic presentations for biology lessons.

3. Students conducting lessons or fragments of lessons for which they are prepared individually or in groups. So, for a lesson in studying the methods of making physiological experiments with plants, students are invited to prepare and conduct a fragment of a lesson with a demonstration of experience.
4. Development of extracurricular activities in biology (usually on the example of studying the sections "Plants" and "Animals"). In the classroom according to the method, students get acquainted with various game techniques, then get a specific topic and are divided into groups (4-5 people) to prepare an event. Work is protected in one of the classes according to the method.
5. Development of excursions in nature, museum, park, etc. (using cultural and educational facilities of the Samara region).
6. Development of tasks for the organization of extracurricular activities. This work is of particular importance, since it causes the greatest difficulty for students. Assignments are adapted to the school teaching and experimental site, as well as doable in nature, in the laboratory and at home.

Disciplines of students choice. Such disciplines are laid down in the curriculum of bachelors of natural science faculty and belong to the disciplines and courses of the professional cycle. There are the following methodical disciplines for choice: "Activity approach in teaching biology" and "ICT in teaching biology".

The discipline of choice "Activity approach in teaching biology" implies familiarity with the following activities in biology: research, medical and health, information and artistic and applied. Explains the content and structure of each activity, methods of implementation and forms of organization. Teachers who willingly share their experience are invited to classes, visits to schools and other educational institutions are possible. In the classroom, students get acquainted with modern educational electronic resources, methods of working with them, distance learning system; analyze Internet resources and their application in various forms of work. Students learn to make presentations in biology.

Educational and research work. Implemented in the writing of term papers and dissertations on the methodology of teaching biology. Subjects of coursework covers all methodological aspects and allows students to choose the most interesting and relevant topic for themselves. Theoretical studies of students are accompanied by examples: specially selected or copyrighted (including those developed and tested during the period of teaching practice).

Pedagogical practices. Pedagogical practice completes the methodical education of bachelors of natural science faculty. Students go to teaching practice armed with knowledge of pedagogy, psychology, methods of teaching biology. They are fully integrated into the work of the teacher and the class teacher. Students must put into practice all previously acquired competencies. They should show the ability to compose and conduct lessons of various types, mastery of various technologies, the ability to conduct extracurricular work on the subject (events, excursions, individual work with students), to participate in the implementation of specialized and pre-profile education.

Thus, the system of methodical training of future biology teachers involves highlighting all current trends in biological education, applying knowledge to practice in direct communication with schoolchildren, cooperating with teachers and using their experience, creating conditions for the formation of pedagogical skills among students themselves and forming their own "handwriting" in the work.

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