

METHODS OF TEACHING THE SUBJECT “BIOLOGY” IN MEDICAL UNIVERSITIES

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Abstract:

The goal of biological education at the current stage is to prepare a biologically and ecologically literate person who must understand the meaning of life as the highest value. He must have an ecological culture and be perfectly oriented not only in biological, but also in areas of knowledge bordering with it. To do this, you need to know biological terms, concepts, theories and be sure to have the skills of their practical application in various fields.

Key words:

Teaching, biology, modern technologies, teaching problems, patterns of development, rational methods.

Introduction

The teaching methodology of biology as a subject is of paramount importance for the preparation of biology teaching. In the learning process, students' professional knowledge and skills are formed, they acquire the ability to teach or teach. The academic subject does not contain all the knowledge accumulated by science in the course of research, but only their foundations. They are specially selected based on the learning objectives, age and background of the students. Unlike science, the main function of any subject is educational. Each subject of training integrates everything that is productive, revises individual problems [1, 3]. Professional training of a future specialist is built in accordance with the teacher's profession, which characterizes his main functions (information, developmental, orientation, mobilization, constructive, communicative, organizational and research), which is a model of qualification training of a specialist [2, 4]. The methodology of teaching biology examines the content of the educational process in this subject and the patterns of assimilation of biological material by students.

Material and methods

The methodology of teaching of biology determines the goals of education, the content of the subject “Biology” and the principles of its selection. Methodists believe that the formation of a whole component of modern biological education, as well as in the field of medicine, depends on the value system, which is determined by:

- the level of education, that is, mastering biological knowledge, skills and abilities that contribute to the active and full inclusion of students in educational, labor, social activities;
- the level of upbringing, which characterizes the system of worldviews, beliefs, attitude to the world around, nature, society, personality;
- the level of development of a student, which determines his abilities, the need for self-development and improvement of physical and mental qualities.

The methodology of teaching biology also notes that one of the most important goals of biological education is the formation of students of a scientific worldview based on the integrity and unity of nature, its systemic and level structure, diversity, unity of man and nature.

Research results and discuss

The subject "Biology" at the level of higher medical education is focused on the formation of knowledge about the structure and functioning of biological systems, about the sustainable development of nature and society in their interaction. Among the main tasks of the methodology of teaching biology as a science are the following:

- defining the role of the subject of biology in the general system of teaching and upbringing of students;
- determination of the content of the subject, the sequence of its study in accordance with the age of the student and programs for different systems of higher education;
- development of methods and techniques, as well as organizational forms of teaching students, taking into account the specific features of biological sciences;
- development and testing in practice of the equipment of the educational process: organization of a study room, laboratory, teaching visual aids, etc.

In the development of science, a rather significant role belongs to the methods of scientific research. The leading methods of teaching biology are as follows:

- 1) empirical - observation, pedagogical experiment, modeling, forecasting, testing, qualitative and quantitative analysis of pedagogical achievements;
- 2) theoretical knowledge - systematization, integration, differentiation, abstraction, idealization, system analysis, comparison, generalization. Building a theory of teaching biology in the system of higher medical education requires a combination of empirical and theoretical knowledge.

The general methodology of teaching biology considers:

- basic concepts of biological education, goals, objectives, principles, methods, means, forms, models of implementation, content and structures, stages, continuity, history of the formation and development of biological education in the country and the world [5];
- ideological, moral and eco-cultural education in the learning process;
- unity of content and teaching methods; the relationship between the forms of educational work;
- the integrity and development of all elements of the biological education system, which ensures the strength and awareness of knowledge, skills and abilities;
- demonstrative methods of teaching: the method of demonstrative presentation of teaching methods, posters, and video clips was used [6];
- the practical method of training in the classroom was mainly using microscopes to examine the cytological preparations, various models and additional demonstrative experiments were used;
- the method of case study - discussion of the lesson, the search for additional sources of literature and conducting teamwork, the organization of debates on the topic of discussion of the lesson;
- materials used in training - computer, interactive whiteboards, posters, drugs, microscopes, samples of living organisms, etc.

Private methodologies explore specific learning issues for each course, depending on the content of the teaching material and the age of the students.

They present the methodology of lessons, excursions, extracurricular activities, extracurricular activities, that is, the system of teaching a specific course in biology. The general method of biology is closely related to all particular biological methods.

Conclusion

Based on the foregoing, we believe that: reduction of hours in biology is unacceptable; biology should be integrated with special subjects or with other theoretical subjects such as normal anatomy, normal physiology, histology, biomedical physics, pathological anatomy, pathological physiology, etc.; the teaching of the subject should be progressive, qualitatively, at a higher, modern level; the transfer of knowledge must necessarily be carried out with the active participation of students, this requires the creation of clear, unified textbooks, teaching aids, the development of programs, laboratory work and seminars.

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