

## THE REVIEW OF MODERN STATE OF ORGANIZATION OF ORGANIC CHEMISTRY COURSES IN CHEMICAL SPECIALTIES

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Teaching organic chemistry in the chemical specialty of the university is an important stage in the formation of the scientific worldview of students and provides support for increasing the level of knowledge in all areas of chemical science.

The purpose of this study is to analyze the existing standards of teaching organic chemistry at Baku State University (BSU), and as a result, to identify and determine a further algorithm for finding ways to improve this educational process.

The first stage of students' acquaintance with the discipline at the Faculty of Chemistry of BSU begins with a lecture. Unfortunately, in a short course of lectures (30 hours in two semesters) it is not possible to present all the theoretical and applied aspects of the discipline. Usually, a lecture presents structured material on a certain topic, accompanied by an illustrated (in the form of a multimedia presentation) presentation of this material, and complemented by explanations. This approach is due to the importance of forming students' ideas about the three-dimensional structure of organic compounds, about the relationship between the spatial structure and the properties of matter, and also creates psychological conditions that contribute to better perception and memorization of educational material. In addition to the lecture material, textbooks developed at the department are used.

The knowledge gained at the lecture serves as a guideline and basis in the process of preparation for each laboratory and practical lesson. The correct methodical organization of a laboratory lesson determines its effectiveness. But at the same time, it is obvious that the quality of the educational process depends not only on the professionalism of the instructor, but also on the level of self-preparation of the student for the lesson.

The best form of modern organization of the educational process is the one that would allow reliable feedback: learning and cognitive activity of students – knowledge and skills of students – diagnostics of acquired knowledge and skills. This implies a reproductive model of education and requires additional introduction of innovative forms of conducting classes into the educational process. The educational process becomes effective if such innovations, including electronic ones, affect not only the classroom work of students, but also relate to the hours allotted for independent work. For the organization and subsequent control of students' independent work in the discipline, the workshop for laboratory and practical classes was significantly updated. Along with the traditional form (the purpose of the lesson, literature for preparation, questions for discussion, description of the progress of experimental experiments and a report on them), additional sections were introduced - written tasks, formulations of basic concepts and tests for self-control. Written tasks include writing structural formulas and their names, designation in the structure of reaction centers, description of schemes of reaction mechanisms, the nature of chemical bonds in the structure of molecules and characteristics of their biological significance.

Laboratory classes at the department are held as a creative interaction between the instructor and students. In the process of discussing the material and discussion, the instructor communicates not only with an individual student answering the question, but also with the whole group. With such an approach to the discussed issue, each student of the group is obliged to follow the course of the discussion, perform it independently in his workbook, and, if necessary, be actively involved in its further discussion and discussion with the answering student and instructor.

Active communication between the instructor and students contributes to a deeper understanding and assimilation of the material by students. The same purpose is served by the continuity and interconnection between the lecture and the laboratory lesson. In the laboratory lesson, aspects of professional orientation are discussed in more depth, which, in our opinion, contributes to the formation of students' understanding of the importance of the topic under discussion for future professional activity. Involving students in the discussion allows, in the end, to correct knowledge, to realize its necessity for subsequent education and future professional activity. During the lesson, not only the discussion of theoretical material is provided, but also the performance of laboratory work. In the course of laboratory work, students perform simple qualitative reactions to functional groups and certain fragments in the structure of organic compounds. This allows you to diversify educational activities. However, the most important thing is to teach students to understand the essence of the changes identified in the process of performing experiments in comparison with theoretical knowledge with subsequent analysis and execution of the protocol using tables and reference literature.

Modern rapid changes in the life of society associated with informatization and the development of computer technologies have caused the need for their use and for improving the forms and methods of teaching in higher educational institutions. One of the possible and, in our opinion, the most promising areas for adapting the educational system to modern conditions is the wider introduction of taxonomic education, providing opportunities for students to develop logical thinking and intellectual capabilities.

In the course of the analysis, the main directions of the search for ways to improve the process of teaching organic chemistry at the university were identified.