

## **MODERN REQUIREMENTS FOR SCIENCE TEACHING IN HIGHER EDUCATION INSTITUTIONS**

ALISHER ERGASHEVICH ERNAZAROV

[alexchigatay1213@gmail.com](mailto:alexchigatay1213@gmail.com)

The reforms implemented in the socio-economic, political, spiritual and cultural spheres in our republic require radical renewal and development of education and personnel training system. Therefore, by developing the education system at the level of modern requirements and on the basis of the gained experiences, educating the growing young generation into fully mature and highly moral people who actively participate in the life of the society is one of the top priorities of our country.

The Law of the Republic of Uzbekistan "On Education", "National Program of Personnel Training" is a document of historical importance, forming the theoretical and practical basis for the implementation of reforms in the development of education and the training of highly qualified specialists in our country, and defining the prospects for further development of education in the future. It should be noted that these documents pay special attention to bringing up the youth, who are the future of our country, to show their existing talents and abilities, and define the foundations, principles and stages of reforming the education system of our country. These historical documents, infused with the ideas of national independence, are being successfully implemented. As a result, a wide way was opened to study the educational system of developed countries. In turn, foreign experts are studying the reforms taking place in the education system of our country and giving them a positive assessment. Such interactions, in turn, require the educational system of our country to analyze the advanced pedagogical technologies of developed countries from the point of view of our national values and introduce them into the educational process. After all, practical work like this is one of the main signs of the integration of the education system of our country with world education standards. Therefore, in the educational process, we should focus on teaching subjects based on pedagogical technologies.

List of textbooks and study guides, recommendations on topics in science teaching, introduction and main parts, practical workshops and experiments. Based on the requirements of the state educational standards, it is possible to provide a drawing, course work and projects, as well as their topics and directions, from certain subjects. Hours allocated to topics, didactic and technical tools used for topics, types of knowledge control for topics and sections, and appropriate methodological recommendations should be clearly indicated.

In the teaching of subjects, it is necessary to follow the principles of the latest achievements of science, technology, technology, the continuous education system introduced in the Republic, to ensure continuity and continuity between the types of education, especially in the subjects taught continuously in higher education, the logical sequence of topics, the transition from simple to complex, from specific to general. It is necessary to pay attention to organizing the independent learning and teaching process of students on the basis of pedagogical technologies, and not to repeat the same interpretation of the topics. The purpose of the subject, based on the network education standard, it is explained what is the main

purpose of teaching this subject. Based on the goal, it is clearly shown what skills and knowledge students will develop during the teaching of this subject.

#### **Requirements for teaching subjects:**

**Historicity.** Reflecting the features of the history and development of science. Introducing the lives and activities of scientists and historical figures who made a great contribution to science.

**Modernity.** Providing knowledge according to the current level of science.

**Humanitarianism.** Adhering to the principles of humanity, generosity and goodness.

**International standard.** Comparison with equivalent curricula in practice in at least two developed foreign countries with different educational systems.

**Competitiveness.** Advances in existing or developing equivalent curricula in developing countries.

**Nationality.** To describe the contribution of scientists and historical figures who lived or worked in Central Asia, who wrote in Uzbek language, to the development of science in a deep and scientifically based way.

**Consistency.** A systematic, logical alternative to science and alignment with relevant science programs in higher education.

**Attractiveness.** To interest and develop students' interest in science, to use the simple to complex narrative style.

**Practicality.** Adhering to the methodology that connects science with life, theory with practice.

**Innovation.** Openness to innovation, new pedagogical technologies, innovations in the field of education based on the requirements of Uzbekistan's own development strategy and the National Program.

#### **The structure of science:**

1. The name of the subject.
2. The purpose and tasks of science.
3. Content of science.
4. Plan of topics.
5. Teaching tools, methods, types and forms.
6. Evaluation system.
7. Used literature.

The content, volume, and sequence of learning of knowledge, skills, and competencies in subjects are determined.

**Skill.** Based on the essence of his subject and in accordance with industry standards, the pedagogue writes based on the formation of skills and knowledge of the students of this subject.

**Knowledge.** Students should have the above skills and knowledge after graduating from the subject.

Modern requirements for teaching subjects in higher educational institutions include the following aspects:

- Active use of interactive and innovative teaching methods: Teachers should strive to create an interactive and stimulating learning environment, including the use of interactive technologies, multimedia, virtual reality and other modern teaching tools.
- Practical orientation: the connection between theory and real practical examples is necessary so that students can apply the acquired knowledge and skills in practice.
- Addressing Different Learning Styles and Individual Student Needs: Teachers should recognize differences in students' learning styles and offer a variety of methods and materials to ensure maximum learning effectiveness.
- Development of critical thinking and problem-solving skills: the learning process should focus on developing students' analytical, evaluative and problem-solving skills, as well as the ability to think independently and creatively.
- Active involvement of students in the learning process: Teachers should encourage active participation of students during the lesson, encourage discussion and cooperation, and allow students to independently study and learn additional materials.
- Assessment and Feedback: Teachers should provide accurate and objective assessment of students and provide timely feedback to help students develop and improve academic achievement.
- Updating of educational content: Pedagogical process should be constantly updated, taking into account the changes in knowledge and technology, as well as the needs of the labor market.
- Development of interdisciplinarity and flexibility: teaching of subjects should help to develop interdisciplinary thinking and the ability of students to adapt to changes and new demands in different fields.
- Use of Information and Communication Technologies: Teachers must master modern technologies to effectively transmit and receive information, as well as to support modern forms of education such as online courses and distance learning.
- Continuous Teacher Development: Teachers should continuously strive to improve their teaching skills, learn new teaching methods and acquire additional knowledge in their field.