

**MUTUAL INTEGRATION BETWEEN THE DISCIPLINES OF PHYSICS AND ELECTRICAL ENGINEERING IN THE PREPARATION OF TEACHERS OF TECHNOLOGY****Saparniyazova Z.M.****Karakalpak State University. Uzbekistan, Nukus city.**e-mail [mzlixa@mail.ru](mailto:mzlixa@mail.ru)**ANNOTATION**

*The issue of interdisciplinary integration is one of the pressing issues in education at the present time, drawing the attention of most scientists. At the same time, interdisciplinary integration is all directions of inclusion in the higher education and has been studied in the scientific work of several scientists.*

**Key words:** *directions of inclusion, the scientific work of several*

If the measurement of electricity in technical universities is studied as an independent educational process, then in pedagogical universities they are engaged in the connection of the course of Electrical Engineering. Energy as a sphere of activity of human society is considered a large global system. Questions about the intensive use of the planet's energy resources should be considered not only technically, but also in terms of the impact of power plants and fuel production on the environment, that is, environmentally.

The state standard of modern physical education determines the practical aspect of physics, its technical and technological aspect. As the basis for the development of technology and technology, the science of physics is considered as the scientific base of social experience.

Physical concepts and its laws form the basis of all natural sciences.

Physics course science-includes the basics of physics science. It includes: facts, concepts, laws, theories, models, fundamental experiments, methods of physics and specific rules and methods of mental and practical activity, practical application of physics, historical data on various stages of the development of physics and the activities of famous scientists [6].

In the learning process, it is very important to ensure a high level of assimilation of basic concepts by students and students. To this end, it is necessary to organize a targeted process for the formation and development of these concepts at different stages of the study of related disciplines, taking into account the principle of continuity.

Recently, there has been a tendency to significantly reduce hours in the study of general technical disciplines, in particular, the curriculum of Electrical Engineering, which leads to the emergence of a number of problems. Such indicators lead to a decrease in the quality and quantitative indicators of students' acquisition of knowledge in Electrical Engineering.

Looking at physical science as a scientific base of general technical sciences, we justify the need to look for ways to connect these disciplines in order to increase the level of integrity, order, interdependence, interdependence of the content of education and improve the assimilation of knowledge.

The analysis of structural and meaningful connections between physics and Electrical Engineering shows that the basic concepts of physics perform the main task in the study of laws in Electrical Engineering. These concepts in Electrical Engineering are further developed, enriched in content, interconnected with physical phenomena, whether it is a technical object or a technological process, magnitudes, which reflect the object or processes of the work itself.

It can be the basis for the development of systems of scientific concepts, the implementation of creative projects assigned for training and production, and conducting experimental research activities, modeling theory for solving technological problems.

The first physical concepts of "electric charge", "interaction of charges", "transmission of electric charges" should be obtained by students under the electroradio technical program, which is held in the direction of "Technology" Education.

For example, in physics, the emergence of such physical concepts as “charge”, “current”, “electric field”, “magnetic field” is created in understanding the essence of a number of phenomena, on the basis of which an important legitimacy is created - the phenomenon of electromagnetic induction, which served the development of technical developments and inventions, the formation of important physical and technical concepts, hypotheses and laws.

The technical basis of modern electricity is associated with the use of the phenomenon of electromagnetic induction in the creation of electromagnetic devices, transformers of each sign – the use of fundamental concepts of physics and electrotechnics.

The content of “electricity and magnetism” in the physics course in the educational material of pedagogical higher educational institutions is carried out in the course process of the lesson, which is closely connected with the differential form of Faraday's law of electromagnetic induction in the formation of the phenomenon of electromagnetic induction, the Lenz rule, the reasons provoking Foucault currents, the phenomena

The interpretation of Maxwell's phenomenon of electromagnetic induction makes it possible to describe this phenomenon in the most generalized form, in the form of a differential equation, which is one of the main relations of the theory of the electromagnetic field [10].

Thus, the system of concepts and theories about the phenomenon of electromagnetic induction, formed in physics, should help students in the course of Electrical Engineering to master physical and technical concepts and knowledge, from the point of view of studying the methods of practical implementation of this important phenomenon.

In Electrical Engineering, great importance is attached to the technological aspect of energy when modern problems are covered, in which: improving the methods of obtaining and sharing, transmitting, distributing and using electricity; increasing the efficiency of electrical equipment and reducing their harmful effects on the environment; creating new methods and means of obtaining energy and converting various types of energy into electrical energy. Energy here is very closely related to physics.

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