Uzbek Scholar Journal
Volume- 24, January, 2024
www.uzbekscholar.com

THE ROLE OF ASTRONOMICAL COMPONENTS IN THE INTERDISCIPLINARY TEACHING OF THE "SUN AND SOLAR SYSTEM" SECTION FROM ASTRONOMY

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Abstract:
This article describes the "Sun and Solar System" section of Astronomy with new modern technologies related to education based on information technology. The introduction of new individual, advanced and pedagogical technologies into the educational process requires changing the attitude of the teacher and the student to learning.

Keywords: Astronomy, interdisciplinary integration, solar system, planet physical parameters, integrative approach, astrophysics, ccelerations.

Introduction

The socio-economic development of our independent republic and the prosperity of our country depend on the level of the introduction of innovative technologies and computer technologies into this process. The introduction of innovative educational technologies and computer technologies into the educational process of higher education institutions requires, first of all, the analysis of existing innovative educational technologies, the preparation of methodological recommendations for their application, taking into account the content of the taught subject. The developed methodical recommendations are used in the process of training, retraining and professional development of pedagogical personnel.

Analyzing the content of the professional activity of pedagogues and the modern requirements for it, in the conditions of today's modernization of education, we need to design the educational process based on the needs of learners, apply advanced foreign experiences to the educational process, information-communication technologies, wide implementation of pedagogical technologies, development of innovative approaches and methods aimed at developing cognitive activity of students, self-independent professional development form the basis of the content of the professional activity of pedagogues of higher education institutions.

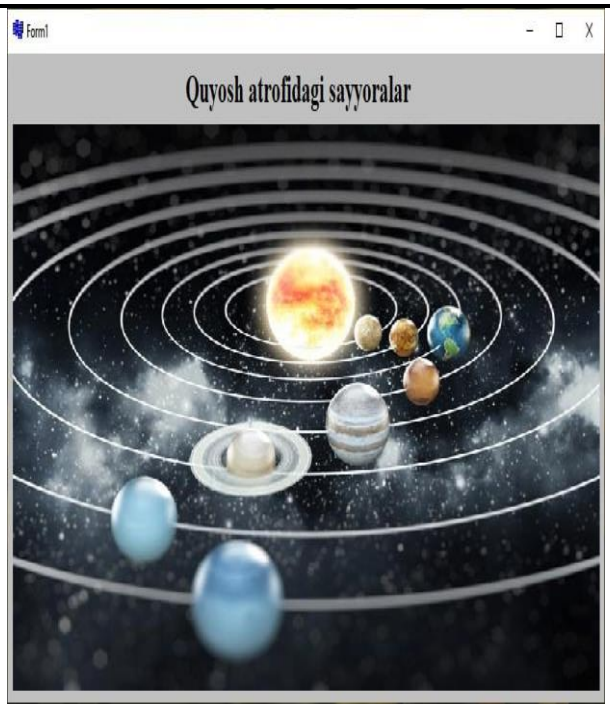
It is aimed at studying all the processes that take place in the planets of the solar system. Until now, it is given in the literature on the planets of the solar system, and today, in the development of science, it is used as the most important method in education. From these, it can be seen that the rapid application of innovative pedagogical and information technologies in the science of astronomy has become a pedagogical-methodical idea. The introduction of information technology into the educational system has led to the creation of new types of training (familiarization with physical models, computer experiments, solving experimental problems, conducting research, creative tasks) especially in the teaching of astronomy.

Astronomical component as a system-creating factor of training of natural sciences in higher educational institutions, astronomy as a science is divided into several departments.

The main divisions of astronomy are:

Astrometry is the study of the positions and movements of celestial bodies in his field of interest. Positional or spherical astronomy - studies the methods of determining the position of cosmic bodies from different observation points. It is often considered a part of astrometry. Celestial mechanics - the study of the laws of motion of celestial bodies of water under the influence of the force of gravity. One of the oldest branches of astronomy. Astrophysics - studies the physical and chemical properties of cosmic bodies. Its components are cosmochemistry and stellar astronomy. The first is related to the study of the chemical composition of celestial bodies and the determination of the laws of distribution of chemical elements in the universe. The latter studies the movement of stars and star systems and their distribution in space, taking into account physical laws. Cosmology - deals with the general laws, properties and evolution of the universe. Cosmogony - studies the origin, development and evolution of cosmic bodies.

In the teaching of astronomy as a subject, using modern pedagogical technologies serves as one of the goals of teaching and as an important factor in improving the quality of knowledge. In teaching the topics of planets in the solar system, the teaching of astronomy by calculating mathematical operations based on physical formulas and using pedagogical technologies will not only increase the speed of knowledge, but at the same time, it will also help to develop the spiritual strength and abilities of the students, instill in them a scientific outlook, a positive attitude. It also allows for the formation of qualities such as.



A single perfect plan for teaching astronomy in the educational system was created and based on this, it was possible to independently acquire astronomical knowledge using computer technologies and Internet media, two electronic complexes were created, and these students could work with textbooks and additional literature, share what they know. At the same time, it is important to be able to read and write physical formulas correctly, to be able to solve equations and problems related to quantity and quality, to be able to apply acquired knowledge, to create equations of law concepts, to find coefficients, to solve formulas It is necessary to be able to write correctly, apply it to the creation of electronic and building formulas, write the formula of a known substance using the general formula of homologous series, create an equation for calculation, and develop the ability to solve problems, this is the need of the hour.

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