
Innovations in teaching technology of the Physical and Colloid Chemistry discipline for the students of the Industrial Ecology Department (bachelors)

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Examples of the implementation of new approaches and technologies in the discipline «Physical and Colloid Chemistry» for training 3rd year students, specializing in Safety of Life in Technosphere, Engineering Environment Protection are analysed. Optimal with respect to efficiency of application for us were constructivist and issue-based approaches to training which provide the ability to use knowledge as a tool of activity, accustom students to think critically, to identify the causal relationship between theory and practice. Innovative pedagogical processes are currently associated with the implementation of a competence approach in higher education, which was used in the development of programs and discipline educational materials. As the most visible role in innovative approaches belongs to the use of computer technology there was created didactic complex of information support of the discipline. It included: the working program of discipline, the text version of lecture course, a database. In didactic complex examples of solving problems for each unit, control questions and tasks to sections of the lecture course with elements of scientific and technical creativity are included. One of the main directions is students mastering modern methods of physical-chemical experiment. With regard, itinerary computer practical training is created. The performance of laboratory works using computer technology allows students to acquire skills in using computer methods for obtaining experimental data and their processing. New approaches to training include also oriented training associated with future profession, motivation of the students to scientific and technical creativity, active relationship with the representatives of the Department for the implementation of educational process tasks.

Keywords: *innovative technologies, competence, program, didactics, discipline, computer methods.*

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