



Министерство образования и науки, молодежи и спорта Украины  
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Национальная металлургическая академия Украины /НМетАУ/  
Технический университет – Варна  
Государственный институт подготовки и переподготовки кадров промышленности /ГИПОпром/

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## NEW ACCENTS IN THE ORGANISATION OF INDIVIDUAL WORK OF STUDENTS

*M.R. Kantserova, Doctor, prof. N.M. Antraptseva, PhD, I.G. Ponomareva  
National University of Life and Environmental Sciences of Ukraine, Kiev,  
PhD, G.N. Bila*

*National university of Food technologies, Kiev, Ukraine*

Creation of state educational standards, revision of on-line tutorials and transition to the credit-module departmental teaching foresees reduction of amount of o'clock of audience employments on chemical disciplines in higher educational establishments of unchemical profile and gives a priority role to individual work of students.

Individual work among various forms and methods of educational work occupies one of major places, her a priority role belongs to in activation of the creative thinking of students, appearance for them of the personal interest in acquisition of knowledge and skills. She found out itself as such, that stimulates the educational activity of students, trains them to systematize the knowledge, work on mastering of material constantly, regularly, consciously. Being one of the most difficult moments in organization of educational process, individual work simultaneously is the most effective form of educational activity of future specialists. In accordance with the credit-module departmental teaching a capacity

for independent studies is the necessary constituent of general education of students.

Individual work of students can take the proper place in the general system of the didactics system of educational object and carry out an important role in the increase of efficiency of studies only at the terms of the correctly methodical providing. Scientifically-reasonable approach of the preparation of methodical-methodical literature for independent work must lean against the complex of known to pedagogical science of didactics and principles, mainly that is the system, scientific character, sequence, availability; to ensure connection of theory with practice, inwardly and intersubject copulas; to ensure the level of development of science, technique, requirements of modern production.

Taking into account these principles, the authors of the article worked out the program of educational discipline "Chemistry" for preparation of bachelors straight a 6.100101 "Energy and electrical engineering systems in an industrial complex" [1]. In her material of course is structured in accordance with the requirements of the credit-module system on two module. General volume of educational time taken on the study of discipline contains 72 hours: 16 – laboratory employments, 24 is independent work of students. Program a reference structure over of maintenance of educational discipline. Reference distribution of educational time are brought for the separate types of lessons and independent work.

Taking into account the important role of individual work of students in their rational organization on the department of general chemistry of the National University of Life and Environmental Sciences of Ukraine as one of constituent of educational methodical complex from discipline "Chemistry" for engineering specialities a scientifically-methodical textbook is created and used for independent work of students [2]. In him systematized, carefully selected and adapted to speciality of students scientific material, connection of theoretical positions of chemistry opens up with practice of future specialist, other requirements that is pulled out to the rich in content block of didactics model of educational object are maximally taken into account. The sequence of presentation of material answers the substantive provision of classic didactics. Informative material of textbook has clear organization and logical accents. Such going new presentation educational of methodical material, in our view, gives an opportunity to learn causal connection to the students.

Taking into account subzero preparedness of students of 1-th course to independent work (the students of engineering specialities of agrarian institutions of higher learning study chemistry on a 1-th course) in the first division of material next to the executable code of course methodical advices over are brought to independent preparation to seminar and laboratory employments.

In an educational methodical textbook to every theme that is studied, it is resulted: reference to modern literature, where more widely and the most essential questions are thoroughly reflected; sweep works and list of basic knowledge.

and skills, that gives mastering to material; methodical advices are to independent preparation from a theme; a task, answers, for that is necessary to be given during a capture material; a separate block of tasks is for verification of mastering of material; a task is for preparation to the colloquium; an example of preparation on a colloquium from a theme; decision of this task and detailed explanation (it is resulted in additions). The presence of feed-back, id est information is about the rightness of implementation of different after complication tasks, creates for students the terms of independence in educational-cognitive activity.

Parts of tasks are sent to development of skills of the analytical thinking that requires the deep analysis of educational material. For this purpose it is suggested to conduct logical correlations students, lay down comparative decision.

Storing of a considerable quantity of the information is possible only under condition of formation of theoretical generalisations and systematization of knowledge. A classical example of systematization – periodic system of chemical elements of D.I.Mendeleev. The main kind of systematization used in educational methodical textbook – classification, for example inorganic, organic substances, oxidation-reduction reactions.

During generalization and systematization of knowledge a large role is played by comparison as method of studies. As memorizing the amount of formulas, facts, rules, conformities to law is difficult, during comparison of material of important value acquires the stowage of the erected tables, charts, charts, that there are formulas, laws, students, governed systematized on certain classes. It gives an opportunity to promote cognitive activity of students, assists to development of attention, forming of long-term memory, expansion of vocabulary, rightness of construction of suggestions and offering opinions. For example, during a capture a theme "Chemical connection and structure of molecules" to the students it is suggested to erect in a table and compare characteristic features, general and excellent lines of four basic types chemical

In the textbook for individual work attention is accented on bilateral inter-subject copulas between fundamental and special disciplines, on tasks, that they are combined. This is important for development of individual cognitive interest and creative capabilities of students, perfection of skills self-training, self-education, self-control. It is assisted also by problem questions that have direct attitude toward future speciality of students. To them the problems of choice belong, for example, that students decide during the study of themes "Hydrolysis of salts", "General properties of metals". It is very important for the successful mastering of material, that a student felt expediency of theoretical knowledge for his further practical activity. A theory without practical examples complicates understanding and perception of educational material, contradicts to the engineer thinkink.

Thus, the use for individual work of students of the scientific-methodical textbook prepared taking into account approach of the systems to the

Стратегія якості в промисловості та освіті 3-10 стор.

study of educational material gives possibility to discover and develop talents and abilities of students, activate systematic self-learning activity of students, increase efficiency of studies and quality of the purchased knowledge and abilities.

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