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THE PURPOSE AND OBJECTIVES OF THE LECTURE ON INORGANIC CHEMISTRY

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Аңдатпа: Химиялық лекциялар ғылыми білімнің іргетасын құрайды. Бейорганикалық химия курсы барлық химия ғылымдарының негізі болып табылады. Сол себепті жоғары оқу орындарында жүргізілетін бейорганикалық химия курсының өзіне тән ерекшеліктері анықталынды. Бейорганикалық химия курсы бойынша жүргізілетін лекцияның пәндік арнайы мақсаты, одан туындайтын дербес мақсаттары, міндеттері, функциялары белгіленді. Химиялық білімнің мазмұнымен таныстыратын кіріспе функциясы, логикалық ойлауды қажет ететін дайындық функциясы, ынталандырушы мотивациялық функциясы, басқа жаратылыстану пәндермен байланыстыратын интеграциялық функциясы, өзбетінше жұмысқа бағыттайтын инструкциялық функциялары анықталынды.

Түйін сөздер: пәндік мақсат, лекция міндеттері, лекция функциялары.

Аннотация: Химические лекции составляют основу научных знаний. Курс неорганической химии является основой всех химических наук. Поэтому были выявлены особенности курса неорганической химии в высшей школе. Определены предметная цель лекции по курсу неорганической химии, вытекающие из нее индивидуальные цели, задачи и функции. Были идентифицированы вводная функция, которая вводит содержание химических знаний, подготовительная функция, которая требует логического мышления, мотивационная функция, повышающая интерес к предмету, интеграционная функция, связывающая с другими естественными предметами, инструктивные функции, направленные на самостоятельную работу.

Ключевые слова: предметная цель, задачи лекции, функции лекции.

Annotation. Chemical lectures form the basis of scientific knowledge. The course of inorganic chemistry is the basis of all chemical sciences. Therefore, the features of the course of inorganic chemistry in higher education were

identified. The objective purpose of the lecture on the course of inorganic chemistry, the individual goals, tasks and functions arising from it are determined. An introductory function that introduces the content of chemical knowledge, a preparatory function that requires logical thinking, a motivational function that increases interest in the subject, an integration function that is associated with other natural sciences, and instructive functions that guide independent work have been identified.

Keywords: purpose of subject, lecture assignments, lecture functions.

The course of inorganic chemistry has a special place in the chemical sciences. This is because inorganic chemistry is the prelude to chemistry in higher education. In addition, this subject has its own peculiarities: first of all, the course of inorganic chemistry is not only a separate subject taught in universities, but also a logical continuation of the subject of chemistry in high school; secondly, all chemical sciences are taught on the basis of the scientific basis of general and inorganic chemistry courses. In particular, analytical chemistry, chemical thermodynamics, chemical kinetics, physical chemistry, colloid chemistry, electrochemistry, chemistry of coordination compounds, chemical technology, structure of substance, etc. Third, the course of general and inorganic chemistry is taught in most universities of the country: specialties of branch universities that require deep chemical basic knowledge: medical; technological - chemical technology of organic substances, chemical technology of inorganic substances; natural sciences - biology, ecology, geography, hydrology, meteorology; agricultural - veterinary, agronomic, as well as technical specialties that are not professional disciplines of chemistry - oil and gas, mining, transport operation and organization of traffic and transportation, transport, transport equipment and technology;

Theoretical information of such an important course of general and inorganic chemistry is conveyed to students through lectures. The lecture can be considered as a guide to getting acquainted with the theoretical knowledge of the subject. The first acquaintance of students with the subject begins with a lecture, which is the basis of scientific knowledge.

When the credit system is included in the learning process, it is necessary to have stable goals and objectives for undergraduate students to understand the actual theoretical data.

In addition to the general purpose for all chemical sciences, each discipline of chemistry has its own subject-specific purpose, from which arises an independent goal.

The subject-specific purpose of the course of inorganic chemistry is to form students chemical scientific thinking, chemical views with the help of the most basic concepts and laws of chemical science, to show the prospects of theoretical and practical development of all science, further explaining the chemistry of elements and compounds. And personal goals are in harmony with the sections and chapters of the course. The course of inorganic chemistry is divided into three

sections: Theoretical Foundations of Inorganic Chemistry, Chemistry of Nonmetals and Chemistry of Metals[1-2].

The section "Theoretical Foundations of Inorganic Chemistry" contains five major theoretical chapters. They are: atomic-molecular theory and basic stoichiometric laws of chemistry; atomic structure and the periodic system of elements and the periodic law; chemical bonding and solid construction; laws of chemical processes; solutions; properties of electrolytes[3-5].

Each of these chapters has its own purpose. For example, the main purpose of the fourth chapter is to teach to determine the actual factors based on the kinetic and thermodynamic laws of chemical processes.

Subject specific and independent goals create some tasks. Thus, the tasks of the lecture on the course of inorganic chemistry can be grouped into three groups[6].

First, the coverage of basic scientific and theoretical information included in the standard curriculum; informing students about the latest achievements of chemical science, research data. Next, focus on independent work; increase interest in the profession through the subject; development of knowledge and skills of students according to their individual abilities; the latter is the systematic formation and control of chemical knowledge[7-8].

Chemistry lectures are the leading form of education in higher education and perform certain functions in the whole educational process.

The introductory function of the lecture is to acquaint students with the content of knowledge in the program, to direct them to the general problem, to identify the main areas and methodologies of chemical research, introducing specific patterns. The function of preparation is to prepare students for chemical processes that require complex thinking, to analyze only the main problem and to solve the problem of leaving most of the educational process to practical, laboratory work. The motivational function of the lecture includes actions that stimulate the establishment of chemical language, the formation of chemical thinking and the mastery of the chemical hand. Now the integration function of the lecture includes the issue of covering other chemical sciences in the system, a general idea of the research methods of chemical science. The final instructional function includes directing students to the main sources of literature, including: instruction in independent work, acquaintance with methodical recommendations, highlighting important and complex aspects of the material.

In conclusion, the purposes, tasks, functions, which are the characteristics of chemical lectures as a form of organization of the learning process, were identified. This will have a positive impact on the quality of education.

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