



Course: Organic Chemistry



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LANGUAGES OF EDUCATION: Russian, English.

THE SUBJECT of the educational course: a study of the composition, methods of synthesis, and chemical transformations of hydrocarbons and their functional derivatives.

THE GOAL of the course includes the formation of the following **abilities** of students:

- ❖ knowledge of methods of observation, description, identification, classification of objects of chemical engineering and food industries;
- ❖ acquiring basic knowledge of the basic sciences to the extent necessary for the development of general disciplines;
- ❖ getting research skills;
- ❖ using the theoretical principles of organic chemistry to solve typical problems of physical and chemical processes of chemical technology
- ❖ using the theoretical principles of organic chemistry with the aim of chemical equipment engineering.

THE MAIN TASK OF THE EDUCATIONAL COURSE

Following the demands of an educational-professional program, after the finishing of this course must demonstrate such learning outcomes:

Knowledge:

- ✓ of the theory of chemical structure and reactivity of organic compounds;
- ✓ of aliphatic hydrocarbons;
- ✓ of alicyclic and aromatic hydrocarbons;
- ✓ of halogen and hydro containing compounds;
- ✓ of sulfur and oxo containing compounds;
- ✓ of nitrogen compounds;
- ✓ of the carboxylic acids;
- ✓ of other classes of organic compounds.

Skills:

- ✓ to use the theoretical principles of organic chemistry to solve the typical problems of physical and chemical processes of chemical technology.
- ✓ to use the provisions of Organic Chemistry to obtain data for the design of chemical equipment.
- ✓ to plan the synthesis of organic compounds.
- ✓ to identify the connection between classes of organic compounds and convert them.
- ✓ to predict the practical use of organic substances.

Experience:

- ✓ conducting experiments to determine the chemical properties of organic compounds.

COURSE DURATION: 72 academic hours of lectures; 18 academic hours of seminars, 18 academic hours of laboratory works

REQUIREMENTS TO STUDENTS: knowledge of general and inorganic chemistry, analytical chemistry

