**Abstract of the program**

**04.03.01 Chemistry (Baccalaureate)**

**The title of the program**: The Analytical Chemisrtry.

**Theaimoftheprogram:** training of highly qualified specialists in the field ofchemistry. The experience in related fields of science: natural, mathematics, humanities, social and economic.Graduates can be able to fulfill of research and of applied research which required basic fundamental experience in the field of analytical chemistry and modern instrumental chemical analysis and computer technology. This enables for graduates to be in demand in the labor market and to work successfully in the sphere of activities related to the chemistry, pharmacology, biology, ecology, medicine.

**The terms of training:** full-time of training - 4 years;

**The graduate departments:** Department of General and Special Chemistry

**The area of professional activity of graduates includes** the study of chemical reactions and processes taking place in natural and industrial sites, conducting qualitative and quantitative chemical analysis of specific sites of synthesis technology of inorganic and organic compounds.

**The objects of professional activity of graduates:**

**-**thechemical reactions and systems of various levels of difficulty;

-thechemicals substances from an organic and inorganic, natural and technogenic origin;

- thechemical-technological processes;

- the qualitative and quantitative chemical analysis and monitoring of various gas, liquid and solid media;

- purification of liquids and gases from contaminating components by physical and chemical sorption processes.

**The sphere of professional activity of graduates** are enterprises of the nuclear industry, the institutes of Russian Academy of Sciences, laboratories, public and private research centers, research and analytical laboratories of various industrial enterprises (fuel and energy complex, chemical-pharmaceutical cluster, agriculture and food industry and others.) ; system of institutions of higher and secondary education.

**Features of the curriculum:** the plan takes into account the focus on meeting the needs of the labor market and employers.The structure of the educational program of undergraduate in field of analytical chemistry includes the study of general scientific and professional cycles and participating in the research work in academic, industrial and pre-diploma practice. The basic educational program of higher education provided by educational-methodical documentation in all disciplines, interdisciplinary courses and professional modules.

**The main basic disciplines:** history, philosophy, mathematics, physics, general chemistry, biology, foreign languages, psychology, sociology, life safety.

**Special disciplines:** inorganic, organic, analytical, physical, colloid, quantum chemistry, macromolecular chemistry, spectral analysis, introduction to electroanalytical chemistry, chromatography analysis, analysis of concrete objects.

**Practice.**During training bachelors obtained the following practices:

1. Teaching practice (after the first course in two weeks).
2. Industrial practice (after the third year for four weeks from July 6 to August 2).
3. Pre-graduation Practice (4th year, two weeks from May 18 to May 1).

**The list of enterprises for practical training:** TheInstitute of Physics and Power Engineering,Scientific and Production organization “Typhoon”,Scientific and Production organization “Tecnologia”, Phisical-Chemical Karpov institute, Nuclear generating station, pharmaceutical companies «Chemopharm», «Bion» and other.

**Social package includes** a stipend, health insurance. Non Resident students are provided with hostel.