

Division: *Institute of Natural Sciences and Mathematics, Department of Theoretical and Applied Chemistry*

Academic programme: *04.03.01 Chemistry*

Mode of study: *full-time*

Programme length: *4 years*

Programme level: *Bachelor's degree*

Language of instruction: *Russian*

Programme description: *The programme involves training of competitive specialists in chemistry that can solve fundamental and applied problems in chemistry, chemical technologies, are ready to conduct scientific research and solve production problems. The modern laboratory base, the possibility of using science-intensive and computer technologies in experimental and theoretical studies make it possible to provide a modern level of training for specialists. Graduates have the competencies to perform professional activities in the field of synthesis and analysis of various chemical compounds, the study of the properties of substances and materials; they can work not only at chemical enterprises, but also at metallurgical, pharmaceutical, medical, food, construction and other industries where environmental control, quality control of raw materials and products are carried out.*

Main programme-specific classes:

- *Inorganic Chemistry*
- *Analytical Chemistry*
- *Organic Chemistry*
- *Physical Chemistry*
- *Chemistry (in English)*
- *Colloidal Chemistry*
- *Introduction to Quantum Chemistry*
- *General Chemical Technology*
- *Stereochemistry and Symmetry of Molecules*
- *Chemical and Biological Sensors*
- *Physical Research Methods*
- *Chemical Fundamentals of Biological Processes*
- *Macromolecular Compounds*
- *Fundamentals of Chemistry of Organoelement Compounds*
- *The Structure of Matter*
- *Molecular Spectroscopy*
- *Chemical Methods of Quality Control of Environmental Objects*

- *Applied Metrology*
- *Chromatography*
- *X-ray Diffraction Analysis*
- *Fundamentals of Crystal Chemistry*
- *Fundamentals of Pharmaceutical Chemistry*
- *Electroanalytical Methods*

Programme manager: *Olga K. Sharutina, Doctor of Sciences (Chemistry), Head of the Department of Theoretical and Applied Chemistry*