

**Division:** *Institute of Natural Sciences and Mathematics*

**Academic programme:** *18.04.01 Chemical Engineering, Chemical Engineering of Natural Energy Carriers and Carbon Materials*

**Mode of study:** *full-time*

**Programme length:** *2 years*

**Programme level:** *Master's degree*

**Language of instruction:** *Russian*

**Programme description:** *The Master's degree programme provides for an individual approach to each student, which allows them to get deep theoretical knowledge, practical skills, and professional experience.*

*Graduates majoring in Chemical Engineering are in demand by enterprises of various fields of activity.*

*Objects of study:*

- *natural energy sources: gas, oil, coal, natural graphite;*
- *artificial carbon materials;*
- *graphite and carbon electrodes;*
- *structural graphites;*
- *carbon-polymer and carbon-carbon composite materials.*

*Areas of professional activity of graduates:*

- *methods, ways and means of obtaining substances and materials;*
- *creation and testing of the latest technologies, including nanotechnologies for obtaining modern materials and products;*
- *introduction of research results into industrial production, including the organization of new industries.*

**Main programme-specific classes:**

- *Modelling and Calculation of Chemical Technology Processes and Units*
- *Stability and Rheology of Dispersed Systems*
- *Theoretical Fundamentals of the Processing of Natural Energy Carriers*
- *X-ray Radiography and Electron Microscopy*
- *Petrography of Coals*
- *Processing of Coal Coking Products*
- *Non-traditional Hydrocarbon Fuel Processing Technologies*

- *Coal Coking*
- *Technologies of Bitumen Production*
- *Diesel Fuel Technologies*
- *Theoretical Fundamentals of Oil and Gas Processing*
- *Production of Carbon-graphite Materials*
- *Processes of Thermal Transformation of Coals*

**Programme manager:** *Bariia Sh. Dyskina, Doctor of Sciences (Engineering), Senior Research Fellow, Professor at the Department of Ecology and Chemical Engineering*