## Geophysics

## Study plans for the bachelor's program

## Language of instruction – Russian

Career prospects – mineral exploration and production / research / environmental safety

Campus – Kazan

Year 1	Year 2
Chemistry	Foreign language
Introduction to the specialization	Law and anti-corruption education
Basics of scientific research	Mathematical methods in geology
Paleontology and stratigraphy	Probability theory and statistics in geology
Foreign language	Geology of minerals
Fundamentals of Russia's statehood	Lithology
History of Russia	Paleontology and stratigraphy
Mathematics	Structural geology
Physics	General hydrogeology
Physical education	Physics
Basics of public safety and disaster relief	Mathematics
Russian language	Geology of fuels
General geology	Elective courses
Geodesy	Geophysics
Crystallography	Petrology
IT	Mineralogy
IT in geology	Historical geology
Elective courses	Basics of exploration geophysics
Internship	Basics of seismic surveys and field geophysics
	Basics of drilling
	Internship
Year 3	Year 4
General geochemistry	Geology of Russia
Tectonics	Environmental geology
Geographical information systems	Economics
Mathematical methods in geology	Philosophy
Annual thesis	Basics of geological modelling
Methods of studies of geological materials	Maintenance of oil and gas deposit development
Petrophysics	Combination of geophysical methods
Seismic surveys	Techniques of geological exploration
Earth physics	Lithology of oil-bearing and gas-bearing strata
Electric surveys	Methods of search and exploration of mineral
Field theory	deposits
Nuclear geophysics	Hydrogeodynamics
Basics of engineering geology	Organizing and implementation of geological
	exploration

Theoretical fundamentals of the methods of search and exploration of oil and gas fields Introduction to electrodynamics and theory of potential fields

Methods of search and exploration of mineral deposits

Elective courses

Mathematical methods of the digital treatment of seismic information

Basics of computer modelling of oil and gas fields

Gravity surveys

Magnetic surveys

Geophysical well logging

Digital technology
GIS in oil-bearing capacity forecasting
Theoretical fundamentals of geophysical data
processing

Methods of automated data processing of geophysical well logging
Methods of numerical modelling and interpretation of geophysical data
Statistical treatment of data
Nuclear geophysics

Engineering geophysics
Basics of interpretation of data in geophysical well logging

Advanced studies of seismic surveys
Pre-graduation internship
Graduation thesis