**Institute of Geology and Petroleum Technologies of Kazan Federal University**

**Department of Paleontology and Stratigraphy**

**Master`s program**
In case of successful completion of the Program the students will be conferred the degrees of Master of science in Geology.

**Stratigraphy of Oil and Gas Basins**

The program aim is to give the in-depth knowledge in different spheres of modern stratigraphy, e.g. Basin Analyses, Sequence stratigraphy, Sedimentology and Lithostratigraphy, Applied Micropalaeontology, Chronostratigraphic Division of the Phanerozoic, Chronostratigraphy and International Stratigraphic Chart, Applied Geophysical Methods, Radiogenic Isotope Geochronology, Skeletal Biomineralization: Patterns, Processes, and Evolution, etc. The program is constructed to give students knowledge both on state-of-the art of stratigraphic concepts and practical trainings using modern methods and appliances of the Institute of Geology and Petroleum Technology of KFU. Master`s program was created in 2016 for the international students. The program is running in English. The tutors of the program are leading KFU professors, many of them are members of the outstanding international research lab of Stratigraphy of Oil and Gas Basins.

Students will be admitted to the Program according to the Rules of Admission established by KFU. The selection of candidates will be made by staff of the Department of Paleontology and stratigraphy of KFU. Applicants must have a qualification/degree corresponding to a 4-year educational program of higher education. If English is not the student's native language, then his/her TOEFL examination results (or equivalent) will be no less than 80 for an on-line test, or no less than 5,5 for IELTS. Training within the Program will be given in English.

The program duration period will be 2 academic years. The curriculum for the students will include:

- the first fall semester at Kazan Federal University, Russia (September – December, 20NN);

- spring and summer semesters at Kazan Federal University, Russia (January – July, 20NN+1) including internship;

- recess in August, 20NN+1;

- the second fall semester at Kazan Federal University, Russia (September – December, 20NN),

- the second spring semester (January – April, 20NN+2) at Kazan Federal University, devoted to writing and defense of graduate qualifying thesis.

**The strategic objectives of Master`s program are:**

Training highly qualified professionals on modeling of the stratigraphic space and lithologic bodies, their origin, development and alteration processes, age, chemical and physical properties, etc. Graduates will be able to use modern methods and technologies to create and develop new research in the field of Earth Sciences.

Achieving world-class quality of scientific research and technological developments, ensuring the development of the resource base of Russia and other regions.

The introduction of modern high-performance technologies in the field of subsoil use and management of natural resources of Russia and other regions.

**The aims and objectives of entrance exams:**

Entrance tests are designed to determine the practical and theoretical training of bachelors and specialists, and are carried out to determine whether the knowledge and skills of students in graduate education requirements toward 05.04.01 - Geology, educational program "Stratigraphy of Oil and Gas Basins".

Entrance exams structure.

The first part of entrance exams includes the writing test on stratigraphy

The second part includes subject oriented interview in English. For interview it is necessary to prepare essay about yourself including following information:

- education level;

- previous study graduate qualification works;

- subject oriented work experience (company, position, period of work, professional activities);

- explain what was the reason to choice of the educational program.

The maximum score on the entrance examination is 100 points.

**The head of the Master's program is Professor Nouria G. Nurgalieva.** She is a prominent scientist and expert in the field of oil and gas geology, stratigraphy and geophysics.

Alumni of this Master`s program can work at the geological companies and oil and gas enterprises as well as. Their knowledge will allow them to led the research team in the field of petroleum geology.

**The assessment of Masters:**

Assessment of students' knowledge is carried out on the score-rating system. Rating indicators on each discipline are formed on the basis of the results of monitoring of students' knowledge during the semester and results of tests and exams. The following scale of rating points is accepted:

86 points or more - "excellent";

71-85 points - "good";

55-70 points - "satisfactory";

54 points or less - "unsatisfactory".

**Career opportunities:** Master students can work in as the leading specialists at the enterprises of Rosgeologiya, the research institutions of RAS, Kazan federal university labs, oil and gas exploration companies (Rosneft, Surgutneftegaz, Gazprom, Lukoil, Tatneft, Zarubezhneft, Total) etc.

**Course outline:**

|  |  |
| --- | --- |
| **Course names** | **Total workload** |
| **1 term** |  |
| Philosophy of natural science | 3 |
| Modern problems of economics, organization and management in the prospecting surveys and subsurface use | 4 |
| History and Methodology of Geological Sciences | 2 |
| Academic writing | 2 |
| Modern Stratigraphic Methods | 2 |
| Sedimentology and Lithostratigraphy | 3 |
| Skeletal Biomineralization: Patterns, Processes, and Evolution | 2 |
| **2 term** |  |
| Sequence Stratigraphy | 2 |
| Applied Chemostratigraphy | 2 |
| Applied Micropalaeontology | 2 |
| Chronostatigraphic Division of the Phanerozoic | 3 |
| Numerical Paleontology and Stratigraphy | 2 |
| Applied Geophysical Methods | 2 |
| Skeletal Biomineralization: Patterns, Processes, and Evolution | 2 |
| Internship | 15 |
| **3 term** |  |
| Basin Analysis | 2 |
| Chronostatigraphic Division of the Precambrian | 2 |
| Biochronology | 3 |
| Chronostratigraphy and International Stratigraphic Chart | 3 |
| Silisiclastic Sequence Stratigraphy | 2 |
| Applied Geomagnetic Methods | 2 |
| Radiogenic Isotope Geochronology | 2 |
| Research work | 10 |
| **4 term** |  |
| Research work | 12 |
| Undergraduate practice | 12 |
| State final examination | 6 |

**Application deadline**: June, 1.

To enter you must submit documents to the selection committee and entrance exams (English language test, test on stratigraphy and interview).

**Cost of education:** 282,000 rub./ year (fees of 2018)

**Program duration** is 2 years (4 terms).

More information <http://kpfu.ru/main_page?p_cid=240692&p_random=538>