



KNRTU-KAI

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German-Russian Institute of Advanced Technologies

DIPLOMA SUPPLEMENT REFERENCE NUMBER

000000000000

CONTROL NUMBER

GRIAT00000

This Diploma Supplement follows the model developed by the EUROPEAN COMMISSION, UNESCO CEPES and COUNCIL OF EUROPE. The purpose of the supplement is to provide sufficient independent data to improve the international 'transparency' and fair academic and professional recognition of qualifications (diplomas, degrees, certificates etc.). It is designed to provide a description of the nature, level, context, content and status of the studies that were pursued and successfully completed by the individual named on the original qualification to which this supplement is appended. It should be free from any value judgments, equivalence statements or suggestions about recognition. Information in all eight sections should be provided. Where information is not provided, an explanation should give the reason why.

1. INFORMATION IDENTIFYING THE HOLDER OF THE QUALIFICATION

1.1 Family name(s)

1.2 Given name(s)

1.3 Date of birth
May 00, 0000

1.4 Student identification number or code
0000000

2. INFORMATION IDENTIFYING THE QUALIFICATION

2.1 Name of the qualification and title conferred

Master of Science
Магистр

2.2 Main field(s) of study for the qualification

Chemical and Energy Engineering

2.3 Name and status of awarding institution

Kazan National Research Technical University named after A.N.Tupolev-KAI, public university
Казанский национальный исследовательский технический университет им. А.Н. Туполева-KAI, государственный университет

2.4 Name and status of institution administering studies

Казанский национальный исследовательский технический университет им. А.Н. Туполева-KAI, государственный университет
Otto-von-Guericke-Universität Magdeburg, Staatliche Universität

2.5 Language(s) of instruction / examination

English

3. INFORMATION ON THE LEVEL OF QUALIFICATION

3.1 Level of qualification

Second cycle of higher education

3.2 Official length of the programme

2 years, 4356 hours in total, including 786 contact hours

3.3 Access requirements

Completed first cycle of higher education
Passed entrance exams

4. INFORMATION ON THE CONTENTS AND RESULTS GAINED

4.1 Mode of study

Full-time, Admission: September 1, 2014; Graduation: August 31, 2016

4.2 Programme requirements

The specific programme requirements are detailed in the relevant Principal educational program, Federal standards for the educational program track, steering document for course of study, where all information on the length of the programme, credit structure, required units of study, intermediate awards, progression requirements, admission regulations and assessment regulations is provided. All respective programme requirements are available via the University website <http://www.kai.ru>.

4.3 Programme details and the individual grades/ marks/ credits obtained

Course	ECTS/ Credits	Hours	Grades
1. Philosophical Problems of Engineering Knowledge	2	72	5 (Excellent)
2. Foreign Language (Technical Translation)	2	72	Passed
3. Economics and Production Management	2	72	Passed
4. Mathematical Modeling	2	72	Passed
5. Modern Problems of Energy and Heat Engineering	2	72	Passed
6. Problems of Energy Resource Saving in Energy and Heat Engineering	3	108	5 (Excellent)
7. Ecological Safety	2	72	5 (Excellent)
8. Principles of Effective Process Control in Energy and Heat Engineering	2	72	Passed
9. Business Communication in Foreign Language	2	72	Passed
10. Chemistry	2	72	5 (Excellent)
11. Advanced Fluid Dynamics	5	180	4 (Good)
12. Advanced Heat and Mass Transfer	5	180	5 (Excellent)
13. Chemical Reaction Engineering	5	180	4 (Good)
14. Thermal Process Engineering	5	180	3 (Satisfactory)
15. Inorganic Chemistry	2	72	Passed
16. Mechanical Process Engineering	5	180	5 (Excellent)
17. Process System Engineering	5	180	3 (Satisfactory)
18. Combustion Engineering	5	180	4 (Good)
19. Power Plant Design	5	180	3 (Satisfactory)
Internships, including:	51	1836	–
Academic:			
Internship for obtaining primary professional skills	3	108	5 (Excellent)
Practicum:			
Research Internship	4	144	5 (Excellent)
Teaching practice	5	180	5 (Excellent)
Research & development	15	540	5 (Excellent)
Field experience	3	108	5 (Excellent)
Research work 1 combined with theoretical training	6	216	5 (Excellent)
Research work 2 combined with theoretical training	6	216	5 (Excellent)
Research work 3 combined with theoretical training	6	216	5 (Excellent)
Field research	3	108	5 (Excellent)
State final examination, including	6	216	–
Master's thesis "Separation of Gas-Liquid Mixtures"	–	–	5 (Excellent)
Total workload of academic programme, including	120	4356	–
The number of hours students worked with the professors		786	–
Elective courses, including			
Modern German Language	1	36	Passed

4.4 Grading system

- 5 (Excellent) – high level of competence
- 4 (Good) – good general performance
- 3 (Satisfactory) – fair performance
- 2 (Failed) – poor performance
- Passed / Not passed

4.5 Overall classification of the qualification (in original language)

- Diploma without honours
- Диплом без отличия

5. INFORMATION ON THE FUNCTION OF THE QUALIFICATION

5.1 Access to further study

The degree entitles its holder to pursue further educational cycle

5.2 Professional status

The degree enables to carry out professional activities in accordance with the level of education and qualification

6. ADDITIONAL INFORMATION

6.1 Additional information

Kazan National Research Technical University named after A.N.Tupolev-KAI (KNRTU-KAI) was founded in 1932 and its history is closely related to the progress of Russian aeronautics. KNRTU-KAI is recognized in Russia and abroad as a modern educational and research complex that combines classic university traditions and the latest technologies in education. The university prepares highly qualified personnel for high-tech industries in science and technology, as well as experts in the field of economics, management and law. Today KNRTU-KAI is a huge educational, scientific and innovative complex that ranks among the best technical universities of Russia.

GRIAT – German-Russian Institute of Advanced Technologies is an international educational project, which is aimed at training highly qualified engineers who get education in KNRTU-KAI as well as in a German partner engineering university. GRIAT students are trained according to the most advanced German and Russian educational standards. GRIAT graduates get two first-class diplomas: from KNRTU-KAI and from a German partner university. Semesters 1st, 2nd and 4th GRIAT students study at KNRTU-KAI and the 3rd semester at a German partner university.

This joint academic programme mastered by the student within GRIAT-institute is called “Chemical and Energy Engineering”, and according to the all-Russian classification of academic programmes matches the academic major called “Heat-Power Engineering and Heating Engineering (Теплотехника и теплоэнергетика)”.

6.2 Additional information sources

Kazan National Research Technical University named after A.N.Tupolev-KAI (KNRTU-KAI): 10, Karl Marx Street, Kazan, Republic of Tatarstan, 420111, RUSSIAN FEDERATION. Tel.:+7-843-238-4110. Fax: +7-843-236-6032. E-mail: kai@kai.ru, griat@kai.ru. Website: www.kai.ru.

Website of the Ministry of Education and Science of the Russian Federation: www.mon.gov.ru.

Website of Otto-von-Guericke-Universität Magdeburg: www.ovgu.de.

7. CERTIFICATION OF THE SUPPLEMENT

This Diploma Supplement is invalid without the original Diploma No. 101618 0831692

Rector of KNRTU-KAI

Prof. Albert Gilmutdinov

Director of GRIAT

Dr. Vladimir Mokshin

Official seal

Date of issue: August 31, 2016

8. INFORMATION ON THE NATIONAL SYSTEM OF EDUCATION

There are two types of educational programs in the Russian Federation

- general education
- vocational education

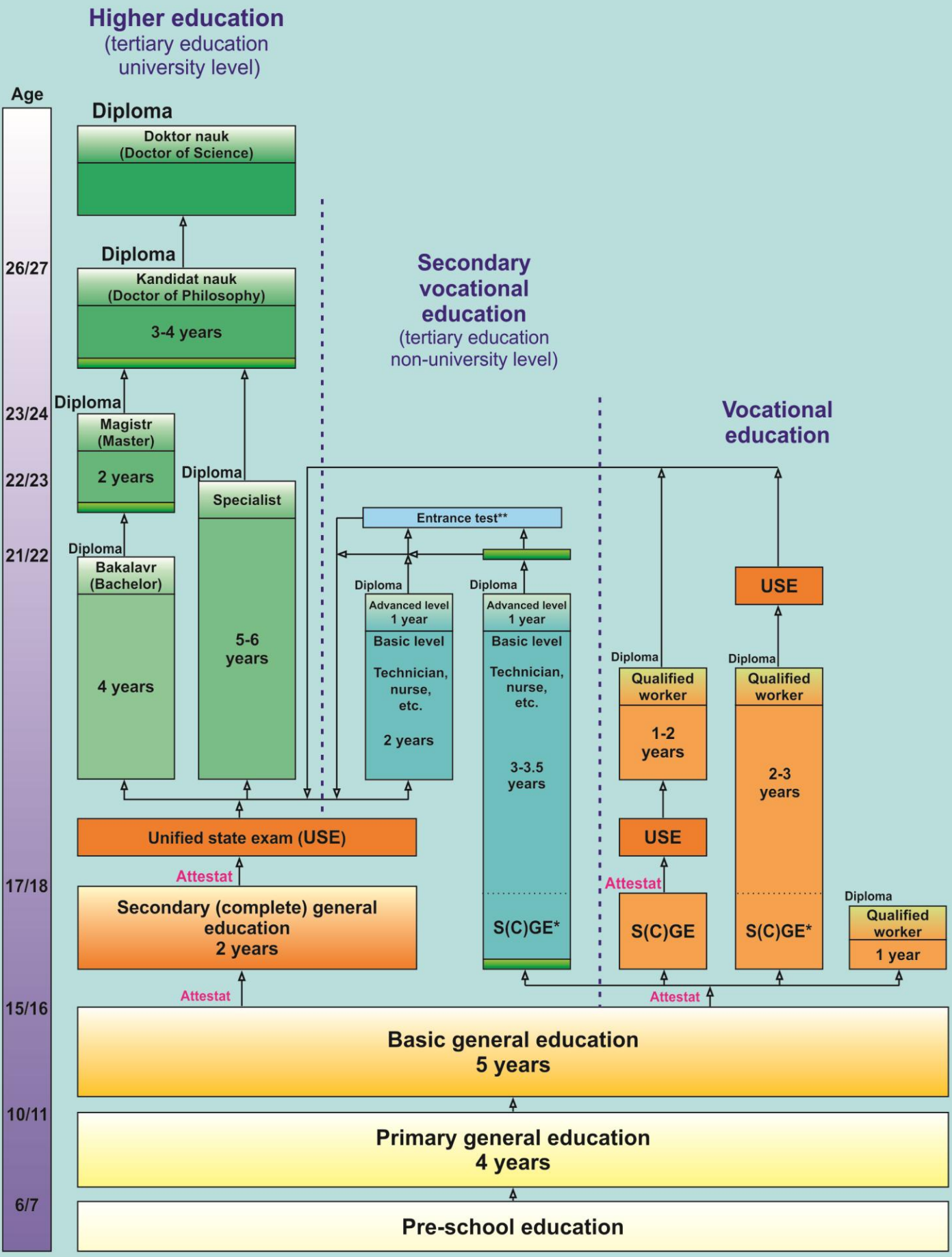
General education comprises four levels

- pre-school education
- primary general education
- basic general (lower secondary) education
- secondary general (upper secondary) education

Vocational education also comprises four levels

- secondary vocational education
- higher education – bachelor degree / bakalavr (first cycle of university education)
- higher education – specialist degree / specialist and master degree / magistr (second cycle university education)
- higher education – training staff with the highest qualification: doctor of philosophy / kandidat nauk and doctor of science / doktor nauk

Since all programs, except general education programs, lead to diplomas or to diplomas and degrees as well as to vocational qualifications, which give the right to exercise professions, they are identified as vocational educational programs (the structure of the national system of education is printed on reverse).



- entrance exam

* - secondary (complete) general education implemented in programs

** - transfer from 2 to 4 semester in the same field of study