

Ministry of Science and Higher Education of the Russian Federation
 Federal State Budgetary Educational Institution of Higher Education
Perm National Research Polytechnic University



APPROVED BY

Pro-rector for Academic Affairs

N.V. Lobov

03 2021

**BASIC PROFESSIONAL ACADEMIC PROGRAM
 OF HIGHER EDUCATION
 BACHELOR'S COURSE PROGRAM
 GENERAL CHARACTERISTIC**
Competency-based model of the graduate (CMG)

Training program (degree):	<u>21.03.01 Oil and Gas Engineering</u>
Direction:	<u>Oil and Gas Engineering</u>
Graduate's qualification:	<u>Bachelor's degree</u>
Form of education:	<u>Full-time</u>
Time of education:	<u>4 years</u>
Graduate Department:	<u>Oil and Gas Technologies</u>

Discussed at the meeting of OGT Department,
 Minutes № ___ from _____
 Head of OGT Department
 Doctor of Engineering, Associate Professor
 _____ G.P. Khizhnyak

Author:

Associate Professor of OGT Department

 M.S. Turbakov

Associate Professor of OGT Department

 E.V. Kozhevnikov

AGREED BY


From PNRPU:

Head of Educational Programs
Administration

 D.S. Repetsky

Deputy General director
for Human Resources
LLC LUKOIL-PERM



 I.Yu. Plotnikov

Human Resources
and organizational development director
LLC "NSH" ASIA DRILLING "



 N.N. Teslyk

Deputy Director of the PermNIPIneft
branch of LLC LUKOIL-Engineering in Perm
for research work in the field development



 A.V. Raspopov

Introduction

Basic professional academic program (BPAP) of higher education – Bachelor’s course program “Oil and Gas Engineering”, developed in accordance with the requirements of PNRPU Institutional Educational Standard of Higher Education in the field of study 21.03.01 “Oil and Gas Engineering” has approved by the decision of the Academic Council of PNRPU from 25.03.2021, minutes № 7 and implemented from 01.03.2019 by the Order of Rector № 16-O from 05.03.2019.

General characteristics of the basic professional academic program, which also includes competency-based model of the graduate (CMG), corresponds the description of educational program provided by the Regulations of arrangement in the “Internet” on the official site of educational institution and refreshment of information about educational institution (approved by the RF Government Regulation from July 10, 2013, № 582).

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1. TERMS, DEFINITIONS, NOTATIONS AND ABBREVIATIONS

1.1. TERMS AND DEFINITIONS

The following terms and definitions have been used in the document:

1.1.1 **Directivity profile of academic program** – orientation of academic program towards the definite fields of knowledge and (or) activities and determination of its subject matter, prevailing types of students' learning activity and requirements for the results of its mastering;

1.1.2 **PRNPU educational standard** – complex of requirements compulsory in all subdivisions of PRNPU participating in development and realization of the basic professional educational programs on the given directivity profile or specialty of higher education;

1.1.3 **basic professional academic program of higher education** – complex of the main parameters of education (volume, contents, intended outcomes), organizational and pedagogical conditions and forms of assessment presented in the form of general characteristic of EP, curriculum, academic time schedule, academic courses working programs (modules), programs of practice, materials of assessment and methodics;

1.1.4 **suggested basic academic program** – educational documentation (suggested curriculum, suggested academic time schedule, suggested academic courses working programs (modules), other components) determining the recommended scope of education of the definite level and (or) the definite field of study, intended outcomes of mastering academic program, suggested conditions of educational activity including approximate estimation of standard costs of rendering public service aimed at academic program realization;

1.1.5 **intended outcomes of mastering educational program** – students' competences determined by educational standard and students' *competences* prescribed by educational program taking into consideration the directivity (profile) of the educational program (in case of such competences determination);

1.1.6 **universal competences** – graduates' competences reflecting society and persons' demands for the cultural and socially-individual qualities of the graduate of higher education program of the corresponding level which involve professional characteristics defining the conformity of the level of education with the national system of vocational qualification;

1.1.7 **general professional competences** – graduates' competences reflecting demands of labor market concerning graduates' mastering the programs of higher education in the field of training general fundamentals of professional activity taking into consideration potential development of the spheres of activity (irrespective of the program directivity to the definite objects of activity or fields of knowledge);

1.1.8 **professional competences** – graduates' competences reflecting the demands of labor market concerning preparedness of the graduate of higher education program of the corresponding level and directivity to fulfill the tasks of professional activity and related labor functions of professional standards for the level of qualification confirmed with profession;

1.1.9 **indicators of competences attainment** – generalized characteristics specifying and uncovering competences statement. Indicators can be presented in the form of summarized outcomes of learning and in the form of definite actions carried out by the graduate who mastered the given competence. Indicators of competences attainment should be measured by means of recourses available in the educational process.

1.1.10 **outcomes of education** (intended) – knowledge, working knowledge, mastering skills obtained by students after the completion of course leaning (module) or practice;

1.1.11 **professional standard** – characteristic of qualification necessary for definite kind of employee's professional activity;

1.1.12 **field of professional activity** (of the graduate) – complex of the graduates' professional activities having the common ground (similar or close purpose, objects, technologies, including means of labor) and expecting analogous set of labor functions and corresponding competences for their fulfillment; it is corresponded with one or several types of business;

1.1.13 **sphere of professional activity** (of the graduate) – segment of professional activity or related fields of professional activity including types of professional activity and characterized by the collection of special objects of professional activity; also the sector (or field) of work which has the definite bounds of application;

1.1.14 **type of professional activity** (of the graduate) – complex of generalized labor functions which can be fulfilled by the graduates and which have the analogous conditions, character and results of work;

1.1.15 **generalized labor function** – complex of interrelated labor functions formed as a result of division of labor in the specific industrial (business) process;

1.1.16 **labor function** – a set of interrelated labor actions aimed at the solution of one or several tasks of work, fulfillment of relatively autonomous and completed part of working process in the frames of generalized labor function;

1.1.17 **working action** – the process of worker's interaction with the subject of labor when the definite goal is achieved;

1.1.18 **object of professional activity** (of the graduate) – event, subject or process influenced by professional activity. Terms "object" and "subject of professional activity" are considered as the synonyms in professional activity connected with material production. It is necessary to differentiate these notions in the sphere of non-material production connected with research work, creative work

and etc. In this case the notion of subject is not the synonym of the object notion, and it involves the properties and relations of the object perception of which is important for the professional tasks solution;

1.1.19 **tasks of professional activity** (of the graduate) – the goal specified in the definite conditions and which can be achieved in the process of realization of the definite actions concerning the object (complex of objects) of professional activity;

1.1.20 **types of the tasks of professional activity** – conventional subdivision of the tasks of professional activity according to the actions made for the achievement of the specified goal.

1.2. NOTATIONS AND ABBREVIATIONS

The following notations and abbreviations have been used in this document:

GQW – graduate qualification work;

HE – higher education;

SE – state examination;

CU – credit unit;

RW – research work;

GPC – general professional competences;

BPAP – basic professional academic program of higher education;

GLF – generalized labor function;

PA – professional activity;

PC – professional competence;

PNRPU – Perm National Research Polytechnic University;

SBAP – suggested basic academic program on the field of study;

PS – professional standard;

RPC – required professional competence;

SIS – student’s independent study;

IAS – institutional academic standard;

UC – universal competence;

AAP – administration of academic programs of PNRPU;

FSBEI – Federal State Budgetary Educational Institution;

FSES – Federal State Educational Standard.

1.3. STANDARD REFERENCES

References to the following standard legal and local acts have been used in this document:

Federal law from December 29, 2012 № 273-FL “About education in the Russian Federation”;

Rules of employers’ communities participation in monitoring and prediction of economics demand in experienced personnel, and in the development and

realization of state policy in the field of secondary professional and higher education approved by the Russian Federation government Regulation from February 10, 2014, № 92;

The order of organization and implementation of educational activity according to the educational programs of higher education – Bachelor’s course programs, specialist’s programs, Master’s course programs, approved by the Order of the Ministry of Education and Science of the Russian Federation from 05.04.2017 № 301;

The procedure of the state final assessment on the educational programs of higher education – Bachelor’s course programs, specialist’s programs and master’s course programs approved by the Order of the Ministry of Education and Science of Russia from June 29, 2015 № 636;

Charter of PNRPU;

Regulations of procedure for development and approval of the basic professional academic program of higher education – Bachelor’s course program, specialist’s program, master’s course program, approved by the Rector on 28.12.2016;

Institutional academic standard in the field of study 21.03.01 “Oil and Gas Engineering” adopted by the Academic Council of PNRPU 28.02.2019, minutes № 6 and brought into operation from 01.03.2019 by the Order of the Rector of University from 05.03.2019 № 16-O.

2. GENERAL CHARACTERISTICS OF ACADEMIC PROGRAM

Goals and objectives of BPAP

The goal of BPAP realization is students’ mastering the programs of Bachelor’s course in the field of study 21.03.01 “Oil and Gas Engineering” the result of which is graduates’ competences formation in accordance with IAP HE PNRPU in this field of study and professional competences stated for this directivity of BPAP.

The objectives of BPAP realization are forming knowledge and skills, experience of professional activity in the frames of learning definite disciplines (modules) and professional internship necessary for implementing definite objectives by the graduate.

Form of education

Training bachelor’s course program in the field of study 21.03.01 “Oil and Gas Engineering” is implemented by full-time education.

In the process of realizing academic program it can be applied the following forms of training: eLearning, distance educational technologies including conditions when students can master particular courses and disciplines (modules)

in the on-line format using the resources of other educational organizations, including universities which provide the quality of students' training in accordance with the world standard.

Requirements for the entrants

The persons having general secondary education, secondary professional education or higher education are permitted to master educational program in the field of study 21.03.01 "Oil and Gas Engineering".

Acceptance for studies at the Bachelor's course program in the field of training 21.03.01 "Oil and Gas Engineering" is based on the results of the competition in accordance with the Admission Regulations of PNRPU.

Language of Teaching

Bachelor's course program academic activity in the field of study 21.03.01 "Oil and Gas Engineering" in PNRPU is implemented in the official language of the Russian Federation. Learning in the English language is allowed.

The scope of program and time of mastering

The scope of program 21.03.01 "Oil and Gas Engineering" amounts to 240 credit units defined as labor intensiveness of student's academic load in the process of mastering the mentioned program and includes all types of learning activity specified by the curriculum for the achievement of the intended outcome of learning.

The scope of bachelor's course program of full-time education realized during one academic year amounts to 70 credit units irrespective of the form of learning.

The period of mastering bachelor's course program of full-time studies comes to 4 years.

3. COMPETENCE MODEL OF THE GRADUATE

3.1. CHARACTERISTIC OF GRADUATE'S PROFESSIONAL ACTIVITY

3.1.1. Field and sphere of graduates' professional activity

Field of professional activity and sphere (spheres) of professional activity where graduates mastering the program of the bachelor's course in the field of study 21.03.01 "Oil and Gas engineering" in PNRPU can implement their professional activity in:

01 Education and science (in the sphere of research activities);

19 Production, processing, transportation of oil and gas (in the areas of: ensuring the performance of work on diagnostics, maintenance, repair and operation of oil and gas equipment; performing work on design, safety control and management of work during drilling; organizing work on geonavigational support

of drilling of oil and gas wells, repair and restoration of wells; operational support of the technological process of oil, gas and gas condensate production; the organization's management processes and execution of works for the operation of underground gas storage; technological support flows of hydrocarbons and modes of technological oil and gas facilities; implementation of complex of works on field geological studies of underground gas storage wells; monitoring and maintenance of the linear part of main gas pipelines; execution of works on maintenance of the transmission equipment; operation of gas distribution stations; organization of works on diagnostics of gas transmission equipment; development of technical and technological documentation for performing emergency recovery and repair works at gas industry facilities; organization of works on corrosion protection of internal surfaces of oil and gas complex equipment; operation of facilities for receiving, storing and shipping oil and petroleum products);

40 End-to-end kinds of professional activity in industry (in the sphere of quality management and CAD of technological processes).

Graduates can implement their professional activity in other fields of professional activity and (or) spheres of professional activity on conditions that their educational level and obtained competences correspond with the employee skill requirements.

3.1.2. Objects of graduates' professional activity or field of knowledge

The objects of professional activity of the graduates mastering the program of bachelor's course in the field of study 21.03.01 "Oil and Gas Engineering" in PNRPU are as follows:

equipment and technologies for construction, repair, reconstruction and restoration of oil and gas wells on land and at sea;

equipment and technologies for oil and gas production, collection and preparation of well products on land and at sea;

techniques and technologies for field control and regulation of hydrocarbon recovery;

equipment and technologies for pipeline transportation of oil and gas, underground gas storage;

equipment and technologies for storage and marketing of oil, petroleum products and liquefied gases;

equipment and tools for construction, repair, reconstruction and restoration of oil and gas wells on land and at sea;

technological processes of construction, repair, reconstruction and restoration of oil and gas wells;

equipment and technologies for construction, repair, reconstruction and restoration of oil and gas wells on land and at sea;

equipment and technologies for oil and gas production, collection and preparation of well products on land and at sea;

techniques and technologies for field control and regulation of hydrocarbon recovery;

equipment and technologies for pipeline transportation of oil and gas, underground gas storage;

equipment and technologies for storage and marketing of oil, petroleum products and liquefied gases;

equipment and tools for construction, repair, reconstruction and restoration of oil and gas wells on land and at sea;

technological processes of construction, repair, reconstruction and restoration of oil and gas wells;

equipment for oil and gas production, collection and preparation of well products on land and at sea; technological processes of oil and gas production;

equipment for field control and regulation of hydrocarbon recovery;

equipment for pipeline transportation of oil and gas, gas storage (including underground); equipment for storage and marketing of oil, petroleum products and gases (including liquefied); technical, technological and regulatory documentation.

3.1.3. Type (types) of objectives and tasks of the graduates' professional activity

In the frames of the bachelor's course program in the field of study 21.03.01 "Oil and Gas Engineering" in PNRPU graduates prepare for the solution of professional activity tasks of the following types:

- technological;
- administrative (managerial);
- research;
- design.

Tasks of the graduate's professional activity are presented in section 4 of the supplement 1.

3.2. PASSPORT OF BPAP COMPETENCES

Passport of BPAP competences includes the list of competences (Table 3.1); indicators of competences attainment (Supplement 1); the Table of competences and academic disciplines relationship (Supplement 2) and stages of competences formation (Supplement 3). At that, the last document plays the role of interlink between the marks for the discipline (practice) put during the interim assessment and the results of mastering BPAP in the form of acquired graduate's competences. The result of mastering BPAP by way of formed competency from the Table of the Supplement 3 is considered to be achieved in case of favorable rating for all subjects and practices during interim assessment.

3.2.1. *Intended outcomes of mastering the basic professional educational program*

Intended outcomes (results) of mastering bachelor's course program in the field of study 21.03.01 "Oil and Gas Engineering" are determined by the competences formed by the graduate, i.e. his ability to apply knowledge and skills as well as personality measure in accordance with the types of the tasks of professional activity.

As a result of mastering bachelor's course program in the field of study 21.03.01 "oil and Gas Engineering" the graduate should possess the competences formed in the process of mastering BPEP, established on the ground of IEP HE PNRPU in the field of study 21.03.01 "Oil and Gas Engineering" including professional competences formed on the basis of professional standards corresponding professional activity of the graduates, and other qualifying standards, including the regional ones, of the labour market. The name of the category (group) of competences and corresponding codes and graduate's competences definition are given in Table 3.1.

Table 3.1 – The list of formed competences

Name of the competencies' category (group)	Code and name of the graduate's competence of educational program
<i>Universal competencies</i>	
Systemic and critical thinking	UC-1. Is able to search, to make critical analysis and synthesis of information, to apply systemic approach aimed at given problems solution.
Development and realization of projects	UC-2. Is able to define the scope of tasks in the frames of the given target, to choose optimal ways of their solution in terms of the current legal regulations, available resources and restrictions, and is able to adopt reasonable economic decisions in different spheres of vital activity
Team work and leadership	UC-3. Is able to carry out social interaction and to realize his role in the team.
Communication	UC-4. Is able to put into practice business communication in oral and written forms using official language of the Russian Federation and foreign languages.
Cross-cultural interaction	UC-5. Is able to perceive cross-cultural diversity of society in social-historical, ethical and philosophic context.
Self-organization and self-development (including health protection)	UC-6. Is able to control his time, to construct and realize the trajectory of self-development on the basis of educational principles during the whole life.
	UC-7. Is able to maintain necessary level of physical fitness for ensuring efficient social and professional activity.
Life Safety	UC-8. Is able to create and ensure safe conditions for life activity including in the cases of emergency situations.
Inclusive competence	UC-9¹. Is able to apply basic defectologic knowledge in social and professional spheres

Name of the competencies' category (group)	Code and name of the graduate's competence of educational program
Economic culture including financial literacy	UC-10¹ . Is able to make reasoned economic decisions in different fields of life activity
Civil stand	UC-11¹ . Is able to form intolerable relation to corrupt behavior
<i>General professional competence</i>	
Application of fundamental knowledge	GPC-1 . Is able to solve problems concerning professional activity using methods of modelling, of mathematical analysis, natural-science and general engineering knowledge.
Engineering design.	GPC-2 . Is able to participate in project engineering of technical facilities, systems and technological processes taking into consideration economic, ecological, social and other boundary conditions.
Cognitive management	GPC-3 . Is able to participate in managing professional activity by the use of knowledge in the field of project management.
Utilization of tools and equipment	GPC-4 . Is able to make measurements and take out observations, to process and present experimental data.
Research.	GPC-5 . Is able to solve problems in the field of professional activity with the use of modern information technologies and applied hardware and software.
Decision making.	GPC-6 . Is able to make reasonable engineering decisions in professional activity, to choose efficient and safe technology.
Use of applied knowledge	GPC-7 . Is able to analyze, to draw up and to use engineering documentation related to professional activity in accordance with active standards.
<i>Professional competence</i>	
Type of professional activity task	
<i>1. Technological</i>	
Technological	PC-1.1 . Ability to realize and correct technological processes of O&G production in accordance with the chosen sphere of professional activity
	PC-1.2 . Ability to provide diagnostics, maintenance service, repair and field operation of processing facilities in accordance with the chosen sphere of professional activity
	PC-1.3 . Ability to carry out operating security control during the realization of technological processes in O&G production in accordance with the chosen professional activity
	PC-1.4 . Ability to carry out operational maintenance of technological processes in accordance with the chosen sphere of professional activity
	PC-1.5 . Ability to design technological and industry documentation on the O&G production facilities maintenance and operation in accordance with the chosen sphere of professional activity
Tasks of professional activity:	
<i>2. Organization and management</i>	
Organization and management	PC-2.1 . Ability to organize the work of small teams and groups of employees in the process of specific professional tasks solution in accordance with the chosen sphere of professional activity.
	PC-2.2 . Ability to implement space management in accordance with the chosen sphere of professional activity
	PC-2.3 . Ability to organize operational maintenance of technological processes in accordance with the chosen sphere of professional activity

Name of the competencies' category (group)	Code and name of the graduate's competence of educational program
Tasks of professional activity: 3. Research	
Research	PC-3.1. Ability to carry out applied research on the problems of oil-and-gas industry in accordance with the sphere of professional activity PC-3.2. Preparedness to participate in the work of scientific conferences and seminars in accordance with the chosen sphere of professional activity
Tasks of professional activity: 4. Designed	
Designed	PC-4.1. Ability to design technological processes of O&G production in accordance with the chosen sphere of professional activity PC-4.2. Ability to implement designed, internal documentation in accordance with the chosen sphere of professional activity

The combination of competences defined by the program of Bachelor's course provides the graduate with the ability to implement professional activity at least in one field of professional activity and sphere of professional activity defined in accordance with the paragraph 4.9 of IEP HE PNRPU and to solve tasks of professional activity at least of one type defined in accordance of the paragraph 4.10 of IEP HE PNRPU.

Indicators of competences attainment are presented in the *Supplement 1*.

3.2.2. Table of competences and academic disciplines relationship

Division of all declared competences in accordance with the disciplines was made on the basis of their contents structure analysis and is represented in the table showing the relationship of competences and academic disciplines and practices participating in formation of each competence (see *Supplement 2*)

In the presence of relationship between the declared competence and academic discipline (practice) in the appropriate cell it is appeared the element (part) of competence formed in the frames of the given discipline (practice). Distribution of academic disciplines according to the formed competences is based on the results of the analysis of the competences components.

So, justification of relationship between declared competences and academic disciplines (practicals) gives the opportunity to estimate purposefulness of the basic professional educational program, to determine the distribution of competences according to the academic disciplines and kinds of practical activity, to optimize the contents of the educational program on the basis of internal and interdisciplinary ties.

3.2.3. Stages of the graduate's competence-based model formation

Formation of the competence is the process and the level of its maturity is the characteristic changing in time. Mastering components of the separate competence happens step-by-step.

The stages of forming each of the declared competences are given in the *Supplement 3*. It is necessary to mention that the components of the competence (knowledge and skill) can be formed during lectures and practical lessons in the process of learning different academic disciplines, and component (having skills or experience of activity) is acquired in the process of research work and practical training.

4. CONDITIONS OF BPAP REALIZATION

Conditions of realization of the bachelor's course program in the field of study 21.03.01 "Oil and Gas Engineering" meet the requirements determined by IEP HE PNRPU for this field of study.

Requirements for the conditions of realization includes: general-system requirements; requirements for logistics and methodological support; requirements for the personnel realizing the program; requirements for the financial conditions of the program realization; requirements for the applied mechanisms of quality assessment of the academic activity and students' preparedness on the program.

4.1. GENERAL-SYSTEM REQUIREMENTS FOR BPAP REALIZATION

FSBEI HE "PNRPU" is the lawful owner of the full legal and beneficial title and has at its disposal the necessary educational activity logistic support (premises and equipment) used for the realization of the bachelor's course program in the field of study 21.03.01 "Oil and Gas Engineering" by the Block 1 "Disciplines (modules)" and Block 3 "State final assessment" in accordance with Curriculum.

Students of the bachelor's course program are provided with the individual unlimited access to the electronic information educational environment of PNRPU during the whole period of studies.

The electronic information educational environment of PNRPU provides the access to the Curricula, Academic Courses Working Programs (modules), practical training, electronic educational publications and electronic educational recourses given in the working programs (modules), practical training, creation of student's electronic portfolio including the storage of his papers and their assessment.

Counting on 100 persons of the research and educational personnel the average annual number of their publications amounts to 2 ones (not less) in the

data base of journals with the index of Web of Science or Scopus, or not less than 20 in the journals with the Russian index of scientific quotation.

4.2. REQUIREMENTS FOR THE LOGISTIC AND METHODOLOGICAL SUPPORT OF BPAP

Logistic support of the Bachelor's course program in the field of study 21.03.01 "Oil and Gas Engineering" includes the characteristic of conditions for the educational process realization, including:

- availability and equipping of premises for conducting academic studies provided by the program, rooms for students' individual work;
- availability of licensed and open courseware, library stock (when printed matters are used in the educational process), access (remote access) to the modern high-end data base and informational reference tools.

In the *Supplement 4* the information about logistic support of the basic professional educational program of higher education – program of Bachelor's course – is presented.

4.3. REQUIREMENTS FOR THE PERSONNEL REALIZING BPAP

BPAP realization is provided by the high-level personnel and academic staff of PNRPU, as well as by the persons engaged in the realization of the program on other terms.

The level of the academic staff proficiency should confirm with the qualification profile prescribed by the Unified skills guide for positions of managers, specialists and non-manual workers, section "Qualification profile for positions of managers and specialists of higher professional and additional professional education" approved by the Order of the Ministry of Health and Social Development of the Russian Federation from January 11, 2011 № 1n (registered by the Department of Justice of the Russian Federation on March 23, 2011 № 20237) and professional standards (if available).

The number of the Learning and Research pedagogical staff of PNRPU participating in the program realization, and the persons attracted by the University to the realization of the program on other terms (in reduced to the tenures integral values) who carries out research, teaching and learning or practical work corresponding the field of studies of the taught discipline (module) including the teachers realizing the program of Bachelor's course amounts not less than to 60%.

The number of the Learning and Research pedagogical staff of PNRPU participating in the program realization, and the persons attracted by the University to the realization of the program on other terms (in reduced to the tenures integral values), having the academic degree (including the academic degree created in the

foreign state and recognized in the Russian Federation) and/or academic rank (including the rank created in the foreign state and recognized in the Russian Federation), from the total number of the academic staff makes up at least 50%.

The number of University employees participating in the program realization and persons attracted by PNRPU to the realization of the program on the other terms (in reduced to the tenures integral values) from among the managers and employees of organizations whose activity is connected with directivity/field of study/specialization of the realized program of Bachelor's course (having the record of work in this professional field at least 3 years) makes up not less than 5% in the total number of the University personnel realizing the program of Bachelor's course.

4.4. REQUIREMENTS FOR THE FINANCIAL CONDITIONS OF BPAP REALIZATION

Financial support for the realization of the Bachelor's course program in the field of study 21.03.01 "Oil and Gas Engineering" is made in the amount which is not less than basic standard costs of the state services concerning the realization of educational programs of Higher education and adjusting factors to the basic standard costs defined by the Ministry of Science and Education of Russia.

4.5. REQUIREMENTS FOR THE APPLIED MECHANISMS OF QUALITY ASSESSMENT OF THE ACADEMIC ACTIVITY AND STUDENTS' PREPAREDNESS ON THE PROGRAM

Quality of education and students' preparedness on the Bachelor's course program in the field of study 21.03.01 "Oil and Gas Engineering" is determined in the frames of the internal assessment system and also the system of external assessment in which PNRPU participate on a voluntary basis.

To improve the Bachelor's course program University attracts employers and/or their communities, other legal persons and/or individuals including teachers of PRNPU in the process of regular internal quality assessment of academic activity.

Bachelor's course program in the field of study 21.03.01 "Oil and Gas Engineering" was considered at the enlarged meeting of the Department "Oil and Gas Technologies" with the participation of employers' representatives and positively received

Internal system of quality support of the academic activity and students' preparedness of learning BPAP in PNRPU is determined by the complex of internal processes in the frames of QMS PNRPU and described in Quality Manual FSBEI HE "PNRPU".

In the frames of internal system of academic activity quality assessment it has been developed the scheme of processes interaction, has defined the centers of responsibility for the realization of the main processes, has developed documentary

procedures, approximate list of the general indicators for the internal quality assessment. In the frames of internal system of quality assessment of academic activity on the Bachelor's course program students are given an opportunity to estimate conditions, contents, organization and quality of the educational process in whole and separate disciplines (modules) and practicals. External quality assessment of academic activity on the Bachelor's course program in the frames of state accreditation procedure is implemented for the purpose of confirming the correspondence of academic activity on the Bachelor's course program with the requirements of FSES HE.

External quality assessment of academic activity and preparedness of students, learning the Bachelor's course program, can be implemented in the frames of professional public accreditation carried out by employers, their communities and authorized organizations, including foreign organizations or authorized national professional and public organizations being the parts of the international structures. The purpose of such assessment is to recognize the quality and level of graduates' proficiency which meets the requirements of professional standards (in the presence of them), demands of labor market made for the professionals in the appropriate field.

1. Indicators of the Universal Competences Attainment

Name of the universal competencies' category (group)	Code and name of the universal graduate's competence of educational program	Code and name of the indicator for the universal competence attainment
Systemic and critical thinking	UC-1. Is able to search, to make critical analysis and synthesis of information, to apply systemic approach aimed at given problems solution.	<p>IA-1uc.1. Knows how to search, to make critical analysis and synthesis of information aimed at solution of the given professional tasks.</p> <p>IA-2uc.1. Is able to apply systemic approach on the basis of search, critical analysis and synthesis of information aimed at solution of science-oriented problems of professional field.</p> <p>IA-3uc.1. Masters the skills of search, synthesis and critical analysis of information in his professional field; is a master of systemic approach aimed at solution of the given tasks.</p>
Development and realization of projects	UC-2. Is able to define the scope of tasks in the frames of the given target, to choose optimal ways of their solution in terms of the current legal regulations, available resources and restrictions, and is able to adopt reasonable economic decisions in different spheres of vital activity	<p>IA-1uc.2. Knows the approaches to the problems statement aimed at the achievement of the given target, possesses knowledge in choice of optimal ways of their solution; realizes the basic principles of economy operation as well as the economic development, the aims and forms of the state interest in the economy.</p> <p>IA-2uc.2. In terms of the current legal regulations, available resources and restrictions is able to choose optimal ways of solution of science-oriented tasks in professional field aimed at achievement of the given target; uses the methods of individual economic and financial planning aimed at achievement of the current and long-term financial goals.</p> <p>IA-3uc.2. Masters the skills of determining the scope of professional tasks in the frames of the given target; the skills of the choice of optimal ways of their solution considering the current legal regulations and available resources; uses financial instruments for managing personal finances (personal budget), controls personal economic financial risks.</p>
Team work and leadership	UC-3. Is able to carry out social interaction and to realize his role in the team.	<p>IA-1uc.3. Knows different means and ways of personal socialization and social interaction.</p> <p>IA-2uc.3. Is able to build a relationship with human environment, with colleagues.</p> <p>IA-3uc.3. Masters the skill of participation in team-work, in social projects, in team's interaction casting.</p>

Name of the universal competencies' category (group)	Code and name of the universal graduate's competence of educational program	Code and name of the indicator for the universal competence attainment
Communication	<p>UK-4. Is able to put into practice business communication in oral and written forms using official language of the Russian Federation and foreign languages.</p>	<p>IA-1uc.4. Knows general lexical minimum of the Russian and studied foreign languages, basic Russian thesaurus of classroom disciplines (History and Philosophy); literary standard and distinctive features of business functional style, requirements for the Russian and foreign oral and written forms of business communication.</p> <p>IA-2uc.4. Is able to analyze, to compare, to generalize and to assess information (facts, events, phenomena, views) in the Russian and foreign languages; logically, reasonably and clearly express thoughts in oral and written forms in the Russian and studied foreign language in situations of interpersonal, professional and business communication.</p> <p>IA-3uc.4. Masters the skills of oral and written business communication in the Russian and studied foreign language; the skills of preparing and presenting oral and written report; has the attainments of business speech etiquette, basic terminology of the Russian and foreign business sphere.</p>
Cross-cultural interaction	<p>UC-5. Is able to perceive cross-cultural diversity of society in social-historical, ethical and philosophic context.</p>	<p>IA-1uc.5. Knows fundamentals of philosophic analysis and social-historic context of cultural diversity formation in society (ethno-cultural and confessional peculiarities), theoretical basis for cross-cultural communication ethics.</p> <p>IA-2uc.5. In the process of interaction is able to take into consideration historical conditionality and ontological basis of cross-cultural diversity in Russian society (ethno-cultural and confessional peculiarities); to carry on dialogue with representatives of different cultures; to show cross-cultural tolerance as the ethic norm of behavior in social medium.</p> <p>IA-3uc.5. Masters the skills of cultural phenomena estimation, of cross-cultural communication in professional sphere in terms of ethical norms, historical conditionality and ontological basis of ethno-cultural, confessional peculiarities of partners of communication.</p>

Name of the universal competencies' category (group)	Code and name of the universal graduate's competence of educational program	Code and name of the indicator for the universal competence attainment
Self-organization and self-development (including health protection)	UC-6. Is able to control his time, to construct and realize the trajectory of self-development on the basis of educational principles during the whole life.	<p>IA-1uc.6. Knows the process of personal self-development and the main principles of self-education.</p> <p>IA-2uc.6. Is able to plan his working time or time for self-development, to determine the aims of personal and professional development as well as the conditions for their achievement reasoning from the tendencies of professional activity progress and the individual characteristic features.</p> <p>IA-3uc.6. Masters the skill of self-development and time management.</p>
	UC-7. Is able to maintain necessary level of physical fitness for ensuring efficient social and professional activity.	<p>IA-1uc.7. Knows the requirements and principles of estimating the level of physical fitness for social and professional work; the ways and procedures for the rise of human fitness level.</p> <p>IA-2uc.7. Is able to appraise the level of physical fitness for further professional activity; to control the level of self-fitness and manage this state.</p> <p>IA-3uc.7. Has the experience of appraisal, control and management of physical development; the skill of determining comfortable (good) state for efficient social and professional activity.</p>
Life Safety	UC-8. Is able to create and ensure safe conditions for life and professional activity aimed at environmental protection, sustainable development of society including in the cases of emergency situations and military conflicts	<p>IA-1uc.8. Knows the level of requirements for creation and ensuring safe conditions of professional activity; the code of behavior in cases of emergency situations.</p> <p>IA-2uc.8. Is able to create and ensure safe conditions for life activity; observe the safety codes in the process of research work and in the field of professional activity; can behave in case of emergency situations.</p> <p>IA-3uc.8. Masters the skills of safety measures in the process of professional activity; creation and observance of safe conditions for professional activity; has the experience of behavior in conditions of emergency situations.</p>
Inclusive competence	UC-9. Is able to apply basic defectologic knowledge in social and professional spheres	<p>IA-1uc.9. Knows the general principles of non-discriminative language with respect to the handicapped persons (correct wording concerning the disability and limited possibilities due to poor health) as well as of empathy and psychological support.</p>

Name of the universal competencies' category (group)	Code and name of the universal graduate's competence of educational program	Code and name of the indicator for the universal competence attainment
		<p>IA-2uc.9. In the process of communication with handicapped persons is able to focus not on the problem but on the handicapped person in terms of his possibilities and conditions of social environment.</p> <p>IA-3uc.3. Has the skill of inclusive voluntary work (involving handicapped persons in voluntary social activity), the experience of interaction with such persons on the basis of humanitarian values, their support in difficult situations.</p>
Economic culture including financial literacy	UC-10. Is able to make reasoned economic decisions in different fields of life activity	<p>IA-1uc.10 Knows basic principles of operation of economy and economic development, aims and forms of state participation in economy.</p> <p>IA-2uc.10 Can apply methods of personal economic and financial planning aimed at achievement of current and long-term financial goals.</p> <p>IA-3uc.10 Has the skill of using financial instruments for personal finances management (personal budget), controls economic financial risks of himself.</p>
Civil stand	UC-11. Is able to form intolerable relation to corrupt behavior	<p>IA-1uc.11. Knows the concept of corrupt activity</p> <p>IA-2uc.11. Is able to reveal the signs of corrupt behavior</p> <p>IA-3uc.11. Has the skill of detecting the features of corrupt behavior and its suppression</p>

2. Indicators of achieving general professional competences

Name of the category (group) of general professional competences	Code and name of general professional competence of educational program graduate	Code and name of indicator of achieving general professional competence
Application of fundamental knowledge	GPC-1. Is able to solve problems concerning professional activity using methods of modelling, of mathematical analysis, natural-science and general engineering knowledge.	<p>IA-1_{gpc-1}. Knows principle features of modelling mathematical, physical and chemical processes assigned for definite technological processes.</p> <p>IA-2_{gpc-1}. Is able to use general laws of the disciplines of mechanical-engineering module; to use general laws of natural-scientific disciplines, the rules of technical drafting and plotting.</p> <p>IA-3_{gpc-1}. Masters the skills of basic procedures of technological and economic analysis, has the skill of drafting as a member of creative team; participates</p>

Name of the category (group) of general professional competences	Code and name of general professional competence of educational program graduate	Code and name of indicator of achieving general professional competence
		knowledgeably in the work aimed at production processes improvement using experimental data and results of modelling; masters business interaction with maintenance department and can estimate their recommendations taking into account experimental work of the enterprise technological department.
Engineering design.	GPC-2. Is able to participate in project engineering of technical facilities, systems and technological processes taking into consideration economic, ecological, social and other boundary conditions.	IA-1_{gpc-2}. Knows vital differences in approach to the project engineering of technical facilities, systems and technological processes. IA-2_{gpc-2}. Is able to determine the demand for commercial material necessary for making the detailed design; analyze the realization of the detailed design requirements in the course of technological process; correct project data owing to his competence; estimate convergence of calculation results obtained by different procedures. IA-3_{gpc-2}. Masters the skills of collection and processing primary materials as assigned by the management of project department; the skills of efficient fulfillment of the detailed design; the skills of computer work with realization of new methods and software package.
Cognitive management	GPC-3. Is able to participate in managing professional activity by the use of knowledge in the field of project management.	IA-1_{gpc-3}. Knows the basic foundation of logistics with reference to oil-and-gas enterprise when general production steps are made in conditions of uncertainty. IA-2_{gpc-3}. Is able to practically apply the elements of industrial management; realize the possibilities of entrepreneurship at overseen entity and its legislative control; find the possibility of combining basic duties with the elements of entrepreneurship. IA-3_{gpc-3}. Has skills of personnel management in small production unit; skills of principle appraisal of the applied entrepreneurship activity at the enterprise.
Utilization of tools and equipment	GPC-4. Is able to make measurements and take out observations, process and present experimental data.	IA-1_{gpc-4}. Knows the procedure of conducting typical experiments on the standard equipment in laboratory and at industrial enterprise. IA-2_{gpc-4}. Is able to process the results of research using standard equipment, instrumentation and materials. IA-3_{gpc-4}. Masters the skills of the experimentation technique with the use of software package.
Research.	GPC-5. Is able to solve problems in the field of professional activity with the use of modern information technologies and applied hardware and software.	IA-1_{gpc-5}. Knows content and properties of oil and gas, general provisions of metrology, qualimetry, standardization and certification of oil production. IA-2_{gpc-5}. Is able to use computer with the aim to make simple engineering calculation; use appropriately software packages; use general technologies of exploration and prospect for oil as well as organization of oil production in Russia and

Name of the category (group) of general professional competences	Code and name of general professional competence of educational program graduate	Code and name of indicator of achieving general professional competence
		<p>abroad, standards and specification, sources of information, mass media and multimedia technologies; acquire knowledge by the application of modern educational and information technologies; orient in data flows selecting principal and necessary information; consciously assimilate information, independently find, derive, systematize, analyze and select necessary information aimed at problems solution, organize, transform, store and pass it; critically reconsider cumulative information, form personal opinion, convert information into knowledge, apply information in problems solution using different ways of text processing.</p> <p>IA-3_{gpc-5}. Masters methods of risk assessment and management of quality performance of manufacturing operations; methods of collection and processing of obtained information using modern information technologies and applied hardware and software, methods of information security, storage and submission.</p>
Decision making.	<p>GPC-6. Is able to make reasonable engineering decisions in professional activity, to choose efficient and safe technology.</p>	<p>IA-1_{gpc-6}. Knows the principles of information-communication technologies and basic information security requirements.</p> <p>IA-2_{gpc-6}. Is able to solve standard tasks of professional activity on the basis of informational and bibliographic culture with the use of modern technologies and information security requirements.</p> <p>IA-3_{gpc-6}. Masters the skills of solving standard problems of professional activity on the basis of modern information technologies and information security requirements.</p>
Use of applied knowledge	<p>GPC-7. Is able to analyze, to draw up and to use engineering documentation related to professional activity in accordance with active standards.</p>	<p>IA-1_{gpc-7}. Knows the content of engineering documentation models connected with professional activity.</p> <p>IA-2_{gpc-7}. Is able to use the basic types and content of engineering documentation models connected with professional activity; demonstrates the ability to generalize information and put it into the blanks of models in accordance with active standards.</p> <p>IA-3_{gpc-7}. Masters the skills of reporting, making reviews, references, requests and etc. relying on real situation.</p>

3. Indicators of achieving graduates' professional competences

Task of P A/generalized labour function	Category of professional competence	Code and name of competence	Code and name of indicator of competence achievement	Grounds (PS, analysis of experience)
Type of professional activity task				
1. Technological				
Realization of technological processes in oil-and-gas production	Technological	PC-1.1. Ability to realize and correct technological processes of O&G production in accordance with the chosen sphere of professional activity	IA-1_{pc-1.1} Knows basic production processes representing unified chain of O&G operation practices. IA-2_{pc-1.1} In coordination with service companies and technical service specialists is able to correct technological processes taking into consideration real situations. IA-3_{pc-1.1} Masters production processes management with the use of modern equipment and materials.	PS 19.005, 19.007, 19.045, 19.048, analysis of experience
Ensuring of diagnostics, maintenance service, repair and field operation of processing facilities	Technological	PC-1.2. Ability to provide diagnostics, maintenance service, repair and field operation of processing facilities in accordance with the chosen sphere of professional activity	IA-1_{pc-1.2} Knows the function, service instruction and repair of O&G facilities; principles of organization and maintenance engineering, methods of rigging up and adjustment of equipment. IA-2_{pc-1.2} Is able to analyze parameters of processing facilities operation; develop and plan the introduction of new equipment. IA-3_{pc-1.2} Masters the skills of of processing facilities diagnostics and maintenance service (internal and external examination) in accordance with requirements of industrial security and labour protection.	PS 19.005, 19.007, 19.045, 19.048, analysis of experience
Operating security control during the realization of technological processes in O&G production	Technological	PC-1.3. Ability to carry out operating security control during the realization of technological processes in O&G production in accordance with the chosen professional activity	IA-1_{pc-1.3} Knows safety regulations in O&G production including the cases of incidents and emergency situations. IA-2_{pc-1.3} Is able to assess risks and organize the work on prevention and elimination of incidents and emergency situations including the cases of service companies involvement. IA-3_{pc-1.3} Masters the skill of implementing technical control of technological equipment condition and operational capability.	PS 19.005, 19.007, 19.045, 19.048, analysis of experience

Task of PA/generalized labour function	Category of professional competence	Code and name of competence	Code and name of indicator of competence achievement	Grounds (PS, analysis of experience)
Operational maintenance of technological processes in accordance with the chosen sphere of professional activity	Technological	<p>PC-1.4. Ability to carry out operational maintenance of technological processes in accordance with the chosen sphere of professional activity</p>	<p>IA-1_{pc-1.4}. Knows technological processes in the field of O&G engineering for the organization of the employees' work. IA-2_{pc-1.4}. Is able to make performing decisions in case of convergence of opinion and conflict of interests, determine work procedure. IA-3_{pc-1.4}. Masters the skills of operational maintenance of technological processes in the field of O&G engineering.</p>	PS 19.005, 19.007, 19.045, 19.048, analysis of experience
Technological and industry documentation design in accordance with the chosen sphere of professional activity	Technological	<p>PC-1.5. Ability to design technological and industry documentation on the O&G production facilities maintenance and operation in accordance with the chosen sphere of professional activity</p>	<p>IA-1_{pc-1.5}. Knows types of technological and industry documentation and requirements for them; types and requirements for accounting, basic accounting instruments, terms of accounting, algorithms of accounts formation. IA-2_{pc-1.5}. Is able to form the request for field research and materials. IA-3_{pc-1.5}. Masters the skills of industry document and accounting maintenance.</p>	PS 19.005, 19.007, 19.045, 19.048, analysis of experience
Tasks of professional activity:				
2. Organization and management				
Organization of work in small groups of employees in the process of definite professional tasks solution	Organization and management	<p>PC-2.1. Ability to organize work of small groups of employees in the process of definite professional tasks solution according to the chosen sphere of professional activity</p>	<p>IA-1_{pc-2.1} Knows the distribution of duties among personnel of production units as well as among the personnel of production units and service departments of contractors during realization of O&G production technological processes. IA-2_{pc-2.1} Is able to provide realization of project decisions by contractors according to O&G production technological processes. IA-3_{pc-2.1} Masters the skills of getting the information about the list of jobs to be fulfilled by contractors and service organizations, about drilling, field and accessory equipment and about main pipeline equipment and storage facilities.</p>	PS 19.005, 19.007, 19.045, 19.048, analysis of experience

Task of PA/generalized labour function	Category of professional competence	Code and name of competence	Code and name of indicator of competence achievement	Grounds (PS, analysis of experience)
Space management	Organization and management	<p>PC-2.2. Ability to implement space management in accordance with the chosen sphere of professional activity</p>	<p>IA-1_{pc-2.2} Knows the arrangement of processing facilities and accessory equipment at production site, qualifying requirements and functions of personnel. IA-2_{pc-2.2} Is able to coordinate and control employees' and service contractors' work at productions site. IA-3_{pc-2.2} Masters the skills of coordinating contractors' work aimed at protection of emergency situations.</p>	PS 19.005, 19.007, 19.045, 19.048, analysis of experience
Organization of operational maintenance of technological processes in accordance with the chosen sphere of professional activity	Organization management	<p>PC-2.3. Ability to implement space management in accordance with the chosen sphere of professional activity</p>	<p>IA-1_{pc-2.3} Knows methods of organizing technological processes operation at oil-and-gas complex. IA-2_{pc-2.3} Is able to apply knowledge concerning technological processes of O&G complex aimed at organization of employees' work; make performing decisions in case of convergence of opinion and conflict of interests; determine work procedure; organize and monitor O&G complex operation; coordinate the work of gathering field data. IA-3_{pc-2.3} Masters the skills of organizing operational management of technological processes in accordance with the chosen sphere of professional activity.</p>	PS 19.005, 19.007, 19.045, 19.048, analysis of experience
Tasks of professional activity:				
3. Research				
Participation in conducting applied research in accordance with the profile of professional activity	Research	<p>PC-3.1. Ability to carry out applied research on the problems of oil-and-gas industry in accordance with the sphere of professional activity</p>	<p>IA-1_{pc-3.1} Knows the methods of analyzing information concerning the technological processes and operation of technological devices in O&G industry. IA-2_{pc-3.1} Is able to plan and make necessary experiments including those where software is applied, interpret the results and draw appropriate conclusions. IA-3_{pc-3.1} Masters the skills of using physical and mathematical apparatus for solution computational and analytical tasks arising in the process of professional activity.</p>	PS 19.005, 19.007, 19.045, 19.048, analysis of experience

Task of PA/generalized labour function	Category of professional competence	Code and name of competence	Code and name of indicator of competence achievement	Grounds (PS, analysis of experience)
Participation in the work of scientific conferences and seminars	Research	PC-3.2. Preparedness to participate in the work of scientific conferences and seminars in accordance with the chosen sphere of professional activity	IA-1_{pc-3.2} . Knows general directions of research in O&G industry. IA-2_{pc-3.2} . Is able to substantiate the urgency and goals of own research with their further representation at the conferences and seminars; make scientifically-grounded reports on the problems of O&G industry. IA-3_{pc-3.2} . Masters the methods of presenting the results of own research in the form of electronic presentation.	PS 19.005, 19.007, 19.045, 19.048, analysis of experience
Tasks of professional activity: 4. Designed				
Engineering maintenance of designing technological processes of O&G production	Designed	PC-4.1. Ability to design technological processes of O&G production in accordance with the chosen sphere of professional activity	IA-1_{pc-4.1} . Knows the mechanism and technology of designing technological processes, technological complexes used in production, in particular, systems of supervisory control (monitoring), geological and technical control, and etc., standard computer programs for calculation of engineering tools and technological decisions. IA-2_{pc-4.1} . Is able to analyze and summarize the experience of designing engineering and technological projects, apply standard software at designing production and technological processes in O&G industry. IA-3_{pc-4.1} . Masters the skill of designing definite sections of engineering and technological projects.	PS 19.005, 19.007, 19.045, 19.048, analysis of experience
Works on implementation of designed, internal documentation	Designed	PC-4.2. Ability to make up design, internal documentation in accordance with the chosen sphere of professional activity	IA-1_{pc-4.2} . Knows regulations, standards, standing instructions, methods of designing in O&G industry. IA-2_{pc-4.2} . Is able to develop standard designs, technological and working papers with the use of CAD of technological processes. IA-3_{pc-4.2} . Masters the skills of innovative methods for solving the tasks of technological and production processes design in O&G industry.	PS 19.005, 19.007, 19.045, 19.048, analysis of experience

Stages of competences formation

Formed competences	Disciplines or practicals – credit units (semesters – kind of final assessment)										Number of disciplines/parts	
	stage 1	stage 2	stage 3	stage 4	stage 5	stage 6	stage 7	stage 8	stage 9	stage 10		
GPC-1	B1.B.12-5 c.u. (1-Exam)	B5.B.16-5 c.u. (2- Grading test)	B1.B.11-14 c.u. (1,2,3-Exam)	B.B.17-5 c.u. (3-CW;3-Exam)	B1.B.10-16 c.u. (2,3,4-Exam)	B1.B.15-3 c.u. (4-test)	B1.B.18-3 c.u. (4-CW;4-test)	B1.B.20-4 c.u. (4-Exam)	B1.B.21-4 c.u. (5-Gr.test)	B1.B.09-3 c.u. (7-test)	B1.B.09-3 c.u. (7-test)	10
GPC-2	B1.B.17-5 c.u. (3-CW;3-Exam)	B1.B.18-3 c.u. (4-CW;4-test)	B1.B.19-5 c.u. (5-CP;5-Exam)	B1.B.09-3 c.u. (7-test)								4
GPC-3	B1.B.23-8 c.u. (1,2,3,4-Gr.test)											1
GPC-4	B1.B.11-14 c.u. (1,2,3-Exam)	B1.B.20-4 c.u. (4-Exam)	B1.B.21-4 c.u. (5- Gr.test)	B1.B.22-3 c.u. (5-test)								4
GPC-5	B1.B.13-5 c.u. (1-Exams)	B1.B.23-8 c.u. (1,2,3,4-Gr.test)										2
GPC-6	B1.B.19-5 c.u. (5-CP;5-Exam)	B1.B.21-4 c.u. (5-Gr.test)	B1.B.09-3 c.u. (7-test)									3
GPC-7	B1.B.11-14 c.u. (1,2,3-Exam)	B1.B.14-4 c.u. (3-Gr.test)	B1.B.22-3 c.u. (5-test)									3
PC-1.1	B1.B.103-3 c.u. (2-Exams)	B1.B.108-6 c.u. (5-CP;5-Exam)	B2.B.04-6 c.u. (8-Gr.test)									3
PC-1.2	B1.B.108-6 c.u. (5-CP;5-Exam)	B1.B.107-16 c.u. (7-CP;5,6,7-Exam)	B1.B.111-6 c.u. (7-Exam)	B2.B.04-6 c.u. (8-Gr.test)								4
PC-1.3	B1.B.113-5 c.u. (6-Exam)	B2.B.04-6 c.u. (8-Gr.test)										2
PC-1.4	B1.B.107-16 c.u. (7-CP;5,6,7-Exam)	B1.B.112-4 c.u. (7-Gr.test)	B1.B.114-3 c.u. (7-test)	B2.B.03-15 c.u. (8-Gr.test)								4
PC-1.5	B1.B.108-6 c.u. (5-CP;5-Exam)	B1.B.107-16 c.u. (7-CP;5,6,7-Exam)	B1.B.110-7 c.u. (7-CP;7-Exam)	B2.B.04-6 c.u. (8-Gr.test)								4
PC-2.1	B1.B.111-6 c.u. (7-Exam)	B1.B.114-3 c.u. (7-test)	B2.B.03-15 c.u. (8-Gr.test)									3
PC-2.2	B1.B.114-3 c.u. (7-test)	B2.B.03-15 c.u. (8-Gr.test)										2
PC-2.3	B1.B.107-16 c.u. (7-CP;5,6,7-Exam)	B1.B.110-7 c.u. (7-CP;7-Exam)	B1.B.111-6 c.u. (7-Exam)	B2.B.04-6 c.u. (8-Gr.test)								4
PC-3.1	B1.B.102-4 c.u. (1-Gr.test)	B1.B.101-3 c.u. (2-Exam)	B1.B.103-3 c.u. (2-Exam)	B1.B.105-5 c.u. (3-Exam)	B1.B.106-6 c.u. (4-CW;4-Exam)	B2.B.01-3 c.u. (4-Gr.test)	B1.B.104-3 c.u. (6-test)					7
PC-3.2	B1.B.109-7 c.u. (6-CP;6-Exam)	B1.B.107-16 c.u. (7-CP;5,6,7-Exam)	B1.B.110-7 c.u. (7-CP;7-Exam)	B1.B.111-6 c.u. (7-Exam)	B2.B.04-6 c.u. (8-Gr.test)							5
PC-4.1	B1.B.109-7 c.u. (6-CP;6-Exams)	B2.B.02-3 c.u. (6-Gr.test)	B1.B.110-7 c.u. (7-CP;7-Exam)	B2.B.03-15 c.u. (8-Gr.test)								4
PC-4.2	B1.B.109-7 c.u. (6-CP;6-Exam)	B1.B.110-7 c.u. (7-CP;7-Exam)	B2.B.03-15 c.u. (8-Gr.test)									3
UC-1	B1.B.02-4 c.u. (2-Gr.test)	B1.B.03-4 c.u. (3-Gr.test)										2
UC-2	B1.B.03-4 c.u. (3-Gr.test)											1

Information about logistical support of the Basic professional educational program

№	Course title (module), internship according to the curriculum	Special rooms and rooms for independent work	Fitting of special rooms and rooms for independent work with:	The list of licensed software. Required information of supporting document
1	History	Lecture room 614990, Perm, 29, Komsomolsky Avenue, room 407	Desks, teacher's desk, blackboard	
2	Philosophy	Lecture room 614090, Perm Krai, Perm, 79, Ekaterinskaya str., building "B", room 305 Classroom 614090, Perm Krai, Perm, 79, Ekaterinskaya str., building "A", room 407	Desks, teacher's desk, Projection device Multimedia, Radio microphone acoustic system with headworn and clip microphone Desks, teacher's desk Monitor Projector Magnetic-marker board Computer	Microsoft Office 2007 (license 42661567) Microsoft Office 2007 (license 42661567)
3	Economics	Lecture room 614990, Perm, 29, Komsomolsky Avenue, room 407 Lecture room 614990, Perm, 29, Komsomolsky Avenue, room 407	Desks, teacher's desk, blackboard Desks, teacher's desk, blackboard	– –
4	Legal studies	Classroom 614090, Perm Krai, Perm, 79, Ekaterinskaya str., building "A", room 404	Monitor Projector Magnetic-marking blackboard Computer	–
5	Social science	Lecture room 614990, Perm, 29, Komsomolsky Avenue, room 407	Desks, teacher's desk, blackboard	–

№	Course title (module), internship according to the curriculum	Special rooms and rooms for independent work	Fitting of special rooms and rooms for independent work with:	The list of licensed software. Required information of supporting document
	Classroom 614090, Perm Krai, Perm, 79, Ekaterininskaya str., building "A", room.302	Classroom 614090, Perm Krai, Perm, 79, Ekaterininskaya str., building "A", room.302	Desks, teacher's desk, blackboard, Multimedia system including projector, notebook, screen, 20 computers	– Windows XP Professional License 42615552 – Microsoft Office 2007 Suites License 42661567
6	Foreign language	Multimedia class 614990, Perm Krai, Perm, 29 Komsomolsky Avenue, central building, room 361	Furniture of special purpose, LCD panel, notebook, Multimedia system, screen, marker board	Windows 7 Home Basic (license OEM – pre-installed version) Microsoft Office 2007 (license 42661567)
6	Foreign language	Classroom 614090, Perm Krai, Perm, 29 Komsomolsky Avenue, central building, room 369,	Furniture of special purpose, LCD panel, DVD-player, notebook, marker board	Windows 10 Home (license OEM – pre-installed version) Microsoft Office 2007 (license 42661567)
7	Physical training	laboratory 614990, Perm, 29 Komsomolsky Avenue, room. 425	Desks, teacher's desk, blackboard, projector, notebook, wall screen	– Windows XP Professional License 42615552 – Microsoft Office 2007 Suites License 42661567
8	Occupational safety and health	Classroom of laboratory equipment 614090, Perm Krai, Perm, 79, Ekaterininskaya str., building "A", room 315	Desks, teacher's desk, blackboard, Laboratory unit "Effectiveness and quality of lighting" Laboratory unit "Sound proofing and sound absorbing" Laboratory unit "Protection from thermal radiation" Laboratory unit "Protection from vibration" Board "Protective ground and neutral earthing" Personal computers	– – – –
	Computer class 614090, Perm Krai, Perm, 79, Ekaterininskaya str., building "A", room 313	Computer class 614090, Perm Krai, Perm, 79, Ekaterininskaya str., building "A", room 313	Personal computers	– Windows XP Professional License 42615552 – Microsoft Office 2007 Suites License 42661567

№	Course title (module), internship according to the curriculum	Special rooms and rooms for independent work	Fitting of special rooms and rooms for independent work with:	The list of licensed software. Required information of supporting document
9	Ecology	Lecture room 614990, Perm, 29, Komsomolsky Avenue, room 407 Laboratory of engineering and oil production technology 614990, Perm, 29, Komsomolsky Avenue, room 417	Desks, teacher's desk, blackboard, Mock up of the cross-type Christmas tree; Mock up of the tee-type Christmas tree; Mock up of the oilwell tubing, drill rods and clutches; Mock up of the rotary pump of ETSNM series, sucker rod pump NV2BM; Mock up "Deck arrangement of equipment at GRP"; Mock up "Models of tools for the subsurface well-workover operation (plotting scale 1:2)"; Mock up "Deck arrangement of equipment in the process of acidizing of wells"; Mock up of measuring unit; Mock up-schema of gun-barrel tank – Laboratory bench "Model of borehole (wellhole), equipped with the plunger sucker rod pump – Laboratory bench for testing hydraulics of oil reservoir model – Laboratory bench for examination of the liquid-gas mixture flow in the borehole – Computer station – 2 units.	– Microsoft Office 2007 (license 42661567) Windows Vista Home (license OEM – pre-installed version)
10	Mathematics	Lecture room 614990, Perm, 29, Komsomolsky Avenue, room 205	Desks, teacher's desk, blackboard, multimedia complex – projector, screen	–
11	Physics	Laboratory of mechanic and molecular physics 614990, Perm, 29, Komsomolsky Avenue, room 246	Board "Determination of the cylinder volume" Board "Determination of free fall acceleration by Atwood's machine" Board "Investigation of full-sphere percussion" Board "Oberbek's pendulum"	

№	Course title (module), internship according to the curriculum	Special rooms and rooms for independent work	Fitting of special rooms and rooms for independent work with:	The list of licensed software. Required information of supporting document
			<p>Board "Determination of the bullet flying speed by the method of ballistic pendulum"</p> <p>Board "Investigation of gyroscope precession"</p> <p>Board "Maxwell's pendulum"</p> <p>Board "Physical pendulum"</p> <p>Board "Determination of free fall acceleration by the method of reverse physical pendulum"</p> <p>Board "Determination of the moment of body inertia by the method of torsional oscillations"</p>	
	<p>Laboratory of electromagnetics 614990, Perm, 29, Komsomolsky Avenue, room 248</p>		<p>Board "Study of electron oscillograph"</p> <p>Board "Study of electrostatic fields"</p> <p>Board "Determination of current source e.m.f. by balancing method"</p> <p>Board "Thermocouple calibration"</p> <p>Board "Determination of magnetic induction in the pole gap of the permanent-magnet system instrument"</p> <p>Board "Study of the current loop magnetic field"</p> <p>Board "Determination of the Earth magnetic field induction by the cathode-ray tube"</p> <p>Board "Study of electromagnetic induction and mutual induction phenomena"</p> <p>Board "Study of hysteresis phenomenon by the electron oscillograph"</p> <p>Board "Investigation of dynamic magnetic susceptibility of magnets"</p>	-
	<p>Laboratory of optics and atomic physics 614990, Perm, 29, Komsomolsky Avenue, room 256</p>		<p>Board "Determination of solid bodies refraction index by means of microscope"</p> <p>Board "Determination of lens focal length"</p>	-

№	Course title (module), internship according to the curriculum	Special rooms and rooms for independent work	Fitting of special rooms and rooms for independent work with:	The list of licensed software. Required information of supporting document
			<p>Board "Determination of radius of curvature of Newton's lens"</p> <p>Board "Determination of optical wavelength by means of Newton's rings"</p> <p>Board "Fresnel biprism"</p> <p>Board "Interference of laser light in thick plate"</p> <p>Board "Determination of optical wavelength by means of diffraction lattice"</p> <p>Board "Study of the effect of light diffraction on the diffraction lattice"</p>	
	<p>Laboratory of photonics 614990, Perm, 29, Komsomolsky Avenue, room 252</p> <p>Classroom 614990, Perm, 29, Komsomolsky Avenue, room 253</p>		<p>Board "Determination of space between slits in the Joung test"</p> <p>Board "Diffraction on the slit, systems of slits and two-dimensional grating"</p> <p>Board "Determination of sugar solution strength by means of polarimeter"</p> <p>Board "Determination of laser beam polarization degree. Study of Malus law and Brewster law"</p> <p>Board "Generation and study of elliptically polarized light"</p> <p>Board "Measurement of liquid refractive index by means of Измерение показателя преломления жидкости с помощью интерферометра Релея»</p> <p>Desks, teacher's desk, blackboard</p>	-
12	Chemistry	<p>Chemical laboratory 614990, Perm, 29, Komsomolsky Avenue, room 435</p>	<p>Fume cupboards 5621-010-230501020-03 PS; Desks; Baker PE-4610; Distill unit; Refrigerator VESTEL- GN260; Laboratory workbenches; Chairs; Testers</p>	-

№	Course title (module), internship according to the curriculum	Special rooms and rooms for independent work	Fitting of special rooms and rooms for independent work with:	The list of licensed software. Required information of supporting document
		<p>PEM-43101; pH-meters of pH-150 MI mark; Analytic balance EK-120; Lamina EPT2-2,0/220; Rectifier VSA-5; Board "Mendeleev's table"</p> <p>Desks, teacher's desk, blackboard, multimedia complex including projector, screen.</p>	<p>Desks, teacher's desk, blackboard, computers 10 units.</p>	<p>–</p>
13	Computer science	<p>Lecture room 614990, Perm, 29, Komsomolsky Avenue, room 205</p> <p>Computer class 614990, Perm, 29, Komsomolsky Avenue, room 263</p>		<p>– Windows XP Professional License 42615552 – Microsoft Office 2007 Suites License 42661567 ABBY FineReader 9.0 Corporate Edition, license №AF90-3UIV25-102 PROMT Professional Double 8.0 Gigant, license №RGG8PRFL Adobe Acrobat 9.0 Pro Edu license №21134490</p>
				<p>Adobe Photoshop CS3 Ext лицензия №CE0811630 CorelDRAW Graphics Suite X4 license №LCCDGSX4MULAB Borland Pascal 7 license №76330 Delphi 2007 for Win32 Enterprise license № PO-398ESD</p>

№	Course title (module), internship according to the curriculum	Special rooms and rooms for independent work	Fitting of special rooms and rooms for independent work with:	The list of licensed software. Required information of supporting document
				C++ Builder 2007 Enterprise license №PO-398ESD Mathematica Professional Version Class A Educational cer license №*L3263-7820* Mathcad 14 University Classroom, license №SE14RYMMEV0002- FLEX license №568405 Autodesk 3ds Max 2009 AcademicEdition New SLM license №12800-000000-9660 KOMPAS-3D V10 license №K-08-1911 AutoCAD 2009 AcademicEdition license №00100-000000-9660 The BAT! Professional v.3 license №879261.1493676 Total Commander 7.xx license №110000 Winrar 3.71 license № 879261.1493674
	Engineering geometry and computer graphics room 404	Computer class 614013, Perm Krai, Perm, 15, Academician Korolyov str., room 404	<ul style="list-style-type: none"> - Computers – 30 units - Printer-copier MFU Kyocera M2035dn - Smartboard - Computer desks and chairs for 30 workplaces. - Teachers desk-2 items. 	Kompas-3D v.16 (v.17) license № IZH-16-00056; Windows XP Professional License 42615552; Microsoft Office 2007 Suites License 42661567

№	Course title (module), internship according to the curriculum	Special rooms and rooms for independent work	Fitting of special rooms and rooms for independent work with:	The list of licensed software. Required information of supporting document
		Lecture room 614013, Perm Krai, Perm, 15, Academician Korolyov str., room 401	Multimedia projector – Panasonic Notebook Desks and chairs for 30 workplaces. Teacher's desk 2 items, chair – 2 items. Desks, teacher's desk, blackboard	Windows XP Professional License 42615552; – Microsoft Office 2007 Suites License 42661567
	Material science	Lecture room 614990, Perm, 29, Komsomolsky Avenue, room 407 laboratory 614990, Perm, 29, Komsomolsky Avenue, room 048	Hardness tester – 2 items; Microscope – 3 items.; Heat-treating furnace – 2 items. Desks, teacher's desk, blackboard, multimedia complex including projector, screen	– –
	Theoretical mechanics	Lecture room 614990, Perm, 29, Komsomolsky Avenue, room 205	Desks, teacher's desk, blackboard, multimedia complex including projector, screen	–
	Solids and structures	Laboratory "Strength of materials" 614990, Perm, 29, Komsomolsky Avenue, room 09	Academic testing machine for tensile, compression and torsion MI-40KU. Maximum axeload if 40 kN. 2011 year of production. Universal training adjustment complex for conducting laboratory work on the discipline "Strength of materials" SM-1, 2011 year of production. Universal testing machine UIM-50. Maximum axeload is 500 kN. 1960 year of production. Desks, teacher's desk, blackboard	– Windows XP Professional License 42615552 – Microsoft Office 2007 Suites License 42661567
		Lecture room 614990, Perm, 29, Komsomolsky Avenue, room 407	Desks, teacher's desk, blackboard	–
	Theory of mechanisms and machines	Lecture room 614990, Perm, 29, Komsomolsky Avenue, room 407 Laboratory "Theory of machines and mechanisms"	Desks, teacher's desk, blackboard Units for different kinds of laboratory work: "Structural analysis of mechanisms",	– – –

№	Course title (module), internship according to the curriculum	Special rooms and rooms for independent work	Fitting of special rooms and rooms for independent work with:	The list of licensed software. Required information of supporting document
	614090, Perm Krai, Perm, 79 Ekaterininskaya str., building A, room 420	"Kinematic observation of gear mechanisms", "Cutting of gear wheels by the rack-type tool", "Static and dynamic balancing of rotors", "Determination of the worm reduction gearbox efficient factor" "Kinematic observation of plane cammed mechanisms", "Determination of friction ratio by means of pendular oscillations" Models of: Kinematic pairs; link, cam and combined mechanisms; gear-type units; straight, planetary, differential and complex gearing .	Reduction gear units. Worm reduction units. Antifriction bearings. Laboratory unit for observation of thread connection. Laboratory unit for determination of friction ratio in thread. Wall charts. Boards with prototypes of machine parts. Computers.	Windows 7 OEM license (free upgrade to Windows 10) Microsoft Office 2007 Suites license 42661567
Machine parts and basic design	Laboratory "Machine parts": 614990, Perm, 29, Komsomolsky Avenue, room 034 Computer class 614090, Perm Krai, Perm, 79 Ekaterininskaya str., building A, room 420	Desks, teacher's desk, blackboard, computers – 16 items.	Desks, teacher's desk, blackboard, computers 5 items	Windows 7 OEM license (free upgrade to Windows 10) Microsoft Office 2007 Suites license 42661567
Thermodynamics and Heat transfer	Computer class 614090, Perm Krai, Perm, 79 Ekaterininskaya str., building A, room 220 Laboratory of thermodynamics 614090, Пермский край, г. Пермь, ул. Екатеринбургская, д. 79, корп. А, 222	Laboratory unit for observation of polytropic processes; Laboratory unit for the examination of compressor operation		– Windows XP Professional Licenseя 42615552 – Microsoft Office 2007 Suites License 42661567 –

№	Course title (module), internship according to the curriculum	Special rooms and rooms for independent work	Fitting of special rooms and rooms for independent work with:	The list of licensed software. Required information of supporting document
	Electrotechnics and electronics	Lecture room 614990, Perm, 29, Komsomolsky Avenue, room 407 Laboratory equipment class 614090, Perm Krai, Perm, 79, Ekaterinskaya str., building A, room 420	Desks, teacher's desk, blackboard Board "Theoretical bases of electrical engineering" – 10 items	– Laboratory equipment class 614090, Perm Krai, Perm, 79, Ekaterinskaya str., building A, room 420
	Metrology, standardization and certification	Laboratory of measuring instruments and elements of automatic control 614990, Perm, 29, Komsomolsky Avenue, room 057 Lecture room 614990, Perm, 29, Komsomolsky Avenue, room 205	Laboratory set Desks, teacher's desk, blackboard, multimedia complex including projector, screen	– –
	Study and research work	Lecture room 614990, Perm, 29, Komsomolsky Avenue, room 407	Desks, teacher's desk, blackboard	–
	Oil and gas chemistry	Chemical laboratory 614990, Perm, 29, Komsomolsky Avenue, room 435	Fume cupboards 5621-010-230501020-03 PS; Desks; Baker PE-4610; Distill unit; Refrigerator VESTEL-GN260; Laboratory workbenches; Chairs; Testers PEM-43101; pH-meters of pH-150 MI mark; Analytic balance EK-120; Lamina EPT2-2,0/220; Rectifier VSA-5; Board "Mendeleev's table"	–
		Lecture room 614990, Perm, 29, Komsomolsky Avenue, room. 205	Desks, teacher's desk, blackboard, multimedia complex including projector, screen	Lecture room 614990, Perm, 29, Komsomolsky Avenue, room. 205

№	Course title (module), internship according to the curriculum	Special rooms and rooms for independent work	Fitting of special rooms and rooms for independent work with:	The list of licensed software. Required information of supporting document
	Petroleum geology	Lecture room (class multimedia) 614990, Perm, 29, Komsomolsky Avenue, room 305	Desks, teacher's desk, blackboard, multimedia complex including projector, screen	-
	Production geology	Lecture room 614990, Perm, 29, Komsomolsky Avenue, room 407	Desks, teacher's desk, blackboard	-
		Special Lecture room 614990, Perm, 29, Komsomolsky Avenue, room. 325	Desks, teacher's desk, blackboard, multimedia complex including projector, screen	- Windows XP Professional License 42615552 - Microsoft Office 2007 Suites License 42661567
	Geodesy	Lecture room 614990, Perm, 29, Komsomolsky Avenue, room 418	Desks, teacher's desk, blackboard	-
		Laboratory of geodesy 614990, Perm, 29, Komsomolsky Avenue, room 406	Theodolites 4T30; Theodolites 2T30; Batter levels N3; Batter levels 2N5	-
	Petrophysics	Special Lecture room 614990, Perm, 29, Komsomolsky Avenue, room. 325	Desks, teacher's desk, blackboard, multimedia complex including projector, screen	- Windows XP Professional License 42615552 - Microsoft Office 2007 Suites License 42661567
		Laboratory equipment class 614990, Perm, 29, Komsomolsky Avenue, room 08/4	Electrodynamic vibration stand PE-6700; GC – 5 device for determining the gas permeability of rocks; AKOV-10 device for quantifying water in oil with flask heaters; Centrifuge with horizontal rotor; Clark AK-4 device for determining the carbonate coefficient of rocks; Installation for saturation of rock samples; Installation for core research UIPK-1m; Viscometer VPJ-2; Stalagmometer; Soxhlet device; Dean and Stark device; Zaks device;	-

№	Course title (module), internship according to the curriculum	Special rooms and rooms for independent work	Fitting of special rooms and rooms for independent work with:	The list of licensed software. Required information of supporting document
	Fluid mechanic and well testing	Laboratory of oil production processe modelling 614990, Perm, 29, Komsomolsky Avenue, room 414 Special Lecture room 614990, Perm, 29, Komsomolsky Avenue, room 325	Computers – 9 items. Desks, teacher's desk, blackboard, multimedia complex including projector, screen Desks, teacher's desk, blackboard, multimedia complex including projector, screen	– Windows XP Professional License 42615552 – Microsoft Office 2007 Suites License 42661567 – Windows XP Professional License я 42615552 – Microsoft Office 2007 Suites License 42661567
	Drilling and well engineering	Special Lecture room 614990, Perm, 29, Komsomolsky Avenue, room 325 Laboratory equipment for examination of drill mud 614990, Perm, 29, Komsomolsky Avenue, room 3176	Desks, teacher's desk, blackboard, multimedia complex including projector, screen Laboratory equipment for examination of drill mud and cementing slurry	– Windows XP Professional License 42615552 – Microsoft Office 2007 Suites License 42661567 –
	Oil and gas equipment	Lecture room 614990, Perm, 29, Komsomolsky Avenue, room 407 Laboratory of oil production technology and engineering 614990, Perm, 29, Komsomolsky Avenue room 417	Desks, teacher's desk, blackboard Layout of cross fountain fittings, Layout of tee fountain fittings; Layout of pump and compressor pipes, rods and couplings to them; Layout of a centrifugal pump of the ECNM series, a downhole rod pump NV2BM, Layout " Layout of equipment for hydraulic fracturing», Layout "Samples of tools for underground and major well repairs (scale 1:2)", Layout "Layout of equipment for acid treatment of wells", Layout of the measuring unit, Layout-diagram of the oil separation unit for gas and water purification	– – Microsoft Office 2007 (License я 42661567) Windows Vista Home (License OEM – pre-instlled version)

№	Course title (module), internship according to the curriculum	Special rooms and rooms for independent work	Fitting of special rooms and rooms for independent work with:	The list of licensed software. Required information of supporting document
			<ul style="list-style-type: none"> - Operating stand " Model of a well equipped.rod plunger pump - Laboratory stand for the study of hydraulic characteristics of the oil reservoir model - Laboratory stand for studying the movement of the gas-liquid mixture in the well - Computer station – 2 units 	
	Lecture room 614990, Perm, 29, Komsomolsky Avenue, room 407	Lecture room 614990, Perm, 29, Komsomolsky Avenue, room 407	Desks, teacher's desk, blackboard	-
	Reservoir engineering Laboratory of oil production processes modelling 614990, Perm, 29, Komsomolsky Avenue room 414	Laboratory of oil production processes modelling 614990, Perm, 29, Komsomolsky Avenue room 414	Computers – 9 items. Desks, teacher's desk, blackboard, multimedia complex including projector, screen	<ul style="list-style-type: none"> - Windows XP Professional License 42615552 - Microsoft Office 2007 Suites License 42661567
	Well production and surface facilities engineering Laboratory of oil production technology and engineering 614990, Perm, 29, Komsomolsky Avenue room 417	Lecture room 614990, Perm, 29, Komsomolsky Avenue, room 407 Laboratory of oil production processes modelling 614990, Perm, 29, Komsomolsky Avenue room 414 Laboratory of oil production technology and engineering 614990, Perm, 29, Komsomolsky Avenue room 417	Desks, teacher's desk, blackboard Computers – 9 items. Desks, teacher's desk, blackboard, multimedia complex including projector, screen Layout of cross fountain fittings, Layout of tee fountain fittings; Layout of pump and compressor pipes, rods and couplings to them; Layout of a centrifugal pump of the ECNM series, a downhole rod pump NV2BM, Layout " Layout of equipment for hydraulic fracturing», Layout "Samples of tools for underground and major well repairs (scale 1:2)", Layout "Layout of equipment for acid treatment of wells", Layout of the measuring unit,	<ul style="list-style-type: none"> - Windows XP Professional License 42615552 - Microsoft Office 2007 Suites License 42661567 Microsoft Office 2007 (License 42661567) Windows Vista Home (License OEM – pre-installed version)

№	Course title (module), internship according to the curriculum	Special rooms and rooms for independent work	Fitting of special rooms and rooms for independent work with:	The list of licensed software. Required information of supporting document
			Layout-diagram of the oil separation unit for gas and water purification – Operating stand " Model of a well equipped.rod plunger pump – Laboratory stand for the study of hydraulic characteristics of the oil reservoir model – Laboratory stand for studying the movement of the gas-liquid mixture in the well – Computer station – 2 units	
	Construction and operation of oil and gas field facilities and tankfarms	Lecture room 614990, Perm, 29, Komsomolsky Avenue, room 407 Laboratory of oil production processes modelling 614990, Perm, 29, Komsomolsky Avenue room 414	Desks, teacher's desk, blackboard Computers – 9 items. Desks, teacher's desk, blackboard, multimedia complex including projector, screen	– – Windows XP Professional License 42615552 – Microsoft Office 2007 Suites License 42661567
	Automation and process control in oil and gas production	Lecture room 614990, Perm, 29, Komsomolsky Avenue, room 407 Laboratory 614990, Perm, 29, Komsomolsky Avenue, room. 057	Desks, teacher's desk, blackboard Computers – 10 items.	– Windows XP Professional License 42615552 – Microsoft Office 2007 Suites License 42661567
		Lecture room 614990, Perm, 29, Komsomolsky Avenue, room 407	Desks, teacher's desk, blackboard	–
	Laboratory of oil production processes modelling	614990, Perm, 29, Komsomolsky Avenue room 414	Computers – 9 items. Desks, teacher's desk, blackboard, multimedia complex including projector, screen	– Windows XP Professional License 42615552 – Microsoft Office 2007 Suites License 42661567

№	Course title (module), internship according to the curriculum	Special rooms and rooms for independent work	Fitting of special rooms and rooms for independent work with:	The list of licensed software. Required information of supporting document
	Laboratory of oil production technology and engineering 614990, Perm, 29, Komsomolsky Avenue room 417	<p>Layout of cross fountain fittings, Layout of tee fountain fittings; Layout of pump and compressor pipes, rods and couplings to them; Layout of a centrifugal pump of the ECNM series, a downhole rod pump NV2BM, Layout "Layout of equipment for hydraulic fracturing", Layout " Samples of tools for underground and major well repairs (scale 1:2)", Layout "Layout of equipment for acid treatment of wells", Layout of a measuring unit, Layout-diagram of an oil separation unit for gas and water purification</p> <ul style="list-style-type: none"> - Operating stand "Model of a well equipped.rod plunger pump - Laboratory stand for the study of hydraulic characteristics of the oil reservoir model - Laboratory stand for studying the movement of the gas-liquid mixture in the well - Computer station. 	<p>Layout of cross fountain fittings, Layout of tee fountain fittings; Layout of pump and compressor pipes, rods and couplings to them; Layout of a centrifugal pump of the ECNM series, a downhole rod pump NV2BM, Layout "Layout of equipment for hydraulic fracturing", Layout " Samples of tools for underground and major well repairs (scale 1:2)", Layout "Layout of equipment for acid treatment of wells", Layout of a measuring unit, Layout-diagram of an oil separation unit for gas and water purification</p> <ul style="list-style-type: none"> - Operating stand "Model of a well equipped.rod plunger pump - Laboratory stand for the study of hydraulic characteristics of the oil reservoir model - Laboratory stand for studying the movement of the gas-liquid mixture in the well - Computer station. 	<p>Microsoft Office 2007 (License 42661567) Windows Vista Home (License OEM – pre-installed version)</p>
Investment project feasibility study	Lecture room 614990, Perm, 29, Komsomolsky Avenue, room 407	Lecture room 614990, Perm, 29, Komsomolsky Avenue, room 407	Desks, teacher's desk, blackboard	-
Business foreign language	Multimedia class 614990, Perm, 29, Komsomolsky Avenue, central building, room 361	Multimedia class 614990, Perm, 29, Komsomolsky Avenue, central building, room 361	Furniture of special purpose, LCD panel, notebook, Multimedia system, screen, marker board	Windows 7 Home Basic (License OEM – pre-installed version) Microsoft Office 2007 (License 42661567)
Economics and business	Lecture room 614990, Perm, 29, Komsomolsky Avenue, room 407	Lecture room 614990, Perm, 29, Komsomolsky Avenue, room 407	Desks, teacher's desk, blackboard	-

№	Course title (module), internship according to the curriculum	Special rooms and rooms for independent work	Fitting of special rooms and rooms for independent work with:	The list of licensed software. Required information of supporting document
	Innovative economy and entrepreneurship	Lecture room 614990, Perm, 29, Komsomolsky Avenue, room 407	Desks, teacher's desk, blackboard	-
	Business communication	Lecture room 614990, Perm, 29, Komsomolsky Avenue, room 407	Desks, teacher's desk, blackboard	-
	Social adaptation of disabled persons *	Laboratory of oil production processes modelling 614990, Perm, 29, Komsomolsky Avenue, room 414	Computers – 9 items. Desks, teacher's desk, blackboard, multimedia complex including projector, screen	- Windows XP Professional License 42615552 - Microsoft Office 2007 Suites License 42661567
	Mathematics, special chapters	Lecture room 614990, Perm, 29, Komsomolsky Avenue, room 407	Desks, teacher's desk, blackboard	-
	Physics, special chapters	Lecture room 614990, Perm, 29, Komsomolsky Avenue, room 253	Desks, teacher's desk, blackboard	-
	Chemistry, special chapters	Lecture room 614990, Perm, 29, Komsomolsky Avenue, room 407	Desks, teacher's desk, blackboard	-
	Industrial application of computer science	Laboratory room 614990, Perm, 29, Komsomolsky Avenue, room. 435	Fume cupboards 5621-010-230501020-03 PS; Desks; Baker PE-4610; Distill unit; Refrigerator VESTEL-GN260; Laboratory workbenches; Chairs; Testers PEM-43101; pH-meters ofpH-150 MI mark; Analytic balance EK-120; Lamina EPT2-2,0/220; Rectifier VSA-5; Board "Mendeleev's table"	-
	Industrial application of computer science	Lecture room 614990, Perm, 29, Komsomolsky Avenue, room 407	Desks, teacher's desk, blackboard	-

№	Course title (module), internship according to the curriculum	Special rooms and rooms for independent work	Fitting of special rooms and rooms for independent work with:	The list of licensed software. Required information of supporting document
	Laboratory for modeling oil production processes 614990, Perm, 29, Komsomolsky Avenue, central building, room 414	Sports hall 614990, Perm, 29, Komsomolsky Avenue	Computers – 9 items. Desks, teacher's desk, blackboard, multimedia complex including projector, screen	– Windows XP Professional License 42615552 – Microsoft Office 2007 Suites License 42661567
	Applied physical training – elective courses (modules) by sports type	Lecture room 614990, Perm, 29, Komsomolsky Avenue, room 407	Sports hall, gym machines	–
	Basics of library and information culture	Laboratory of oil production processes modelling 614990, Perm, 29, Komsomolsky Avenue, room 414	Desks, teacher's desk, blackboard	–
	Room for independent work		Desks, teacher's desk, blackboard, multimedia complex including projector, screen, computers – 9 items	– Windows XP Professional License 42615552 – Microsoft Office 2007 Suites License 42661567

Information about personnel maintenance of the basic professional academic program

	Indicator	Mearsuring unit/denotation	Information value
1.	The share of scientific and pedagogical workers (in the rates reduced to integer values) who have an education corresponding to the profile of the taught discipline (module), in the total number of scientific and pedagogical workers implementing the main educational program / the share of pedagogical workers of the Organizational and persons engaged on other terms, conducting scientific, educational and methodological and (or) practical work corresponding to the profile of the taught discipline (in the rates reduced to integer values) in the total number of employees implementing the program.	%	80,0
2.	The share of scientific and pedagogical workers (in the rates reduced to integer values) who have an academic degree (including an academic degree awarded abroad and recognized in the Russian Federation) and (or) an academic title (including an academic title obtained abroad and recognized in the Russian Federation) in the total number of scientific and pedagogical workers implementing the main educational program.	%	80,00
3.	The share of scientific and pedagogical workers (in the rates reduced to integer values) who have an academic degree (including an academic degree awarded abroad and recognized in the Russian Federation) and (or) an academic title (including an academic title obtained abroad and recognized in the Russian Federation) in the total number of scientific and pedagogical workers implementing the main educational program..	%	10,00
4.	Information about a full-time scientific and pedagogical employee who has an academic degree (including an academic degree awarded abroad and recognized in the Russian Federation), who performs general management of the scientific content of the main educational program (for bachelor's degree programs).	Associate prof. of OGT department M.S. Turbakov	
5.	Academic degree (including academic degree awarded abroad and recognized in the Russian Federation)	Academic degree	Cand. of engineering

