

«АККРЕДИТТЕУ ЖӘНЕ РЕЙТИНГТІҢ ТӘУЕЛСІЗ АГЕНТТІГІ» КЕМ

НУ «НЕЗАВИСИМОЕ АГЕНТСТВО АККРЕДИТАЦИИ И РЕЙТИНГА»

INDEPENDENT AGENCY FOR ACCREDITATION AND RATING

# REPORT

about the results of the work of the external expert commission for assessing compliance with the Standards and Guidelines for the international accreditation of foreign educational organizations and educational programs (based on ESG) of the educational program 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" Grozny State Oil Technical University named after Academician M.D. Millionshchikov"

Date of on-line visit: from October 26 to October 28, 2021



#### INDEPENDENT AGENCY FOR ACCREDITATION AND RATING External expert commission

Addressed to the IAAR Accreditation Council



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#### (I) LIST OF SYMBOLS AND ABBREVIATIONS

IAAR - Independent Agency for Accreditation and Rating **EEC - External Expert Commission** EP - Educational program ESG - European Standards and Guidelines FSBEI HE - Federal State Budgetary Educational Institution of Higher Education IAAR – Independent agency for accreditation and rating PhD – Doctor of Philosophy **RF** - Russian Federation GSOTU - Grozny State Oil Technical University University - Higher Educational Institution FL - Federal Law FSES HE - Federal State Educational Standards for Higher Education NJSC - Non-commercial Joint Stock Company PPS - Professorial Pedagogical Staff IAIT - Institute of Applied Information Technology PRS - point - rating system IPRBooks - Intellectual property right books ESS - Economic Security Service ICC - Industrial and civil construction TBP - Technology of building production **GED** - General Educational Disciplines **BD** - Basic disciplines MD - Major disciplines UHCS - Utilities - Housing and Communal Services **CR** - Chechen Republic OJSC - Open Joint Stock Company LLC - Limited Liability Company FTP - Federal Target Program QMS - Quality Management System NSRF - National Standards of the Russian Federation ISO - International Organization for Standardization DEMW - Department for educational and methodological work RIIAQE - Regulations on the Internal Independent Assessment of the Quality of Education EMC - Educational and Methodological Council EPHE - Educational program of higher education CED - Catalog of elective disciplines AT -Acting - temporary duties MEP - Modular Educational Program BIM - Building information modeling **EIEE - Electronic Information and Educational Environment RW** - Research work RWS - Research work of students AS - Academy of Sciences PR - public relations CC - Construction company SAC - State Attestation Commission SEC - State Examination Commission CHPP - Combined Heat and Power Plant MSUCI - Moscow State University of Civil Engineering

RAABS - Russian Academy of Architecture and Building Sciences

BSTU - Belarusian State Technological University

CRI RAS - Complex Research Institute of the Russian Academy of Sciences named after Kh.I.Ibragimov

RFBR - Russian Foundation for Basic Research

UAE - United Arab Emirates

ICT - Information and Communication Technologies

EML - Educational methodic literature

WoS - Web of Science

Scopus - Bibliographic and abstract database

NBDSC - National Bibliographic Database of Science Citations(Quotation)

AC - copyright certificates

ICAID - Institute of Construction, Architecture and Design

LCADS - Laboratory of computer-aided design systems

Mass media - mass media

UCS - United Council of Students

FAF - Fund for Appraisal Facilities

MOOC - Mass Open Online Course

IST - Information systems and technologies

OGB - Oil and gas business

AG - Applied Geodesy

#### (II) INTRODUCTION

In accordance with the order No. 120-21-OD dated 02.09.2021 of the Independent Agency for Accreditation and Rating (IAAR), from October 26 to October 28, 2021, the External Expert Commission (EEC) conducted an online assessment of the conformity of the educational program 05.21.01 Applied geodesy, specialization "Engineering Geodesy" of the Grozny State Oil Technical University named after Academician M.D. Millionshchikov Standards and guidelines for international accreditation of foreign educational organizations and educational programs (based on ESG) of the National Institution of Independent Accreditation and Rating Agency (Nur-Sultan, 2018).

The EEC report contains an assessment of the compliance of the activities of the Grozny State Petroleum Technological University named after academician M.D. Millionshchikov" within the framework of international accreditation to the IAAR criteria, recommendations of the EEC for further improvement of the parameters of a specialized profile.

The composition of the EEC:

Chairman of the EEC IAAR – Belykh Yury Eduardovich, Candidate of Physical and Mathematical Sciences, Associate Professor, Vice-Rector of Yanka Kupala State University of Grodno (Grodno, Republic of Belarus).

IAAR expert – Aldungarova Aliya Kairatovna, PhD, Associate Professor of Toraigyrov University (Pavlodar, Republic of Kazakhstan). Evaluation of EP 08.03.01 - "Construction" focus (profile) - "Industrial and civil construction".

IAAR expert – Ganagina Irina Gennadievna, Ph.D., Head of the Department of Space and Physical Geodesy, Siberian State University of Geosystems and Technologies (Novosibirsk, Russian Federation). Evaluation of OP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy".

IAAR expert – Guzeva Tatyana Aleksandrovna, Ph.D., Associate Professor, Head of the Department of Educational Standards and Programs, Moscow State Technical University named after N.E. Bauman (Moscow, Russian Federation). Evaluation of OP 09.03.03 - "Applied Informatics" focus (profile) - "Applied Informatics in Economics".

IAAR Expert – Alexander Grakovski (Grakovski Alexander), Professor, Faculty of Computer Science and Electronics, Institute of Transport and Communications (Riga, Latvia). Evaluation of EP 09.03.02 "Information systems and technologies".

IAAR expert – Ismailova Dzhamilyam Abdulahatovna, PhD, assistant professor of the Institute of Geology and Oil and Gas Affairs of the Kazakh National Research Technical University named after K.I. Satpaev (Almaty, Republic of Kazakhstan). Evaluation of OP 21.03.01 - "Oil and gas business" focus (profile) - "Operation and maintenance of oil production facilities."

IAAR expert, employer - Uzaeva Aminat Alviyevna, head of the department "Construction" of the Ministry of Construction, Housing and Communal Services of the Chechen Republic (Grozny, Chechen Republic of the Russian Federation).

IAAR expert, student - Egizbayeva Asylzat Erkinkyzy, student of the 1st year of the educational program 7M06149 Information Systems of Kyzylorda University named after Korkyt Ata (Kyzylorda, Republic of Kazakhstan). Evaluation of EP 09.03.02 "Information systems and technologies".

IAAR expert, student - Kupzhanov Dias Serikovich, a 4th year student of the School Program "Construction and Environmental Engineering" of Nazarbayev University (Nur-Sultan, Republic of Kazakhstan). Evaluation of EP 08.03.01 - "Construction" focus (profile) - "Industrial and civil construction".

IAAR expert, student – Platonova Elena Sergeevna, 4th year student of EP 21.03.01 Oil and gas business (profile "Operation and maintenance of oil production facilities") RSU "Russian State University of Oil and Gas (National Research University) named after I.M. Gubkin" (

Moscow, Russian Federation). Evaluation of EP 21.03.01 - "Oil and gas business" focus (profile) - "Operation and maintenance of oil production facilities."

IAAR expert, student - Aliyev Emir Shamil oglu, 4th year student of EP 050604 "Geophysics" of the Azerbaijan State University of Oil and Industry (Baku, Republic of Azerbaijan). Evaluation of EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy".

IAAR Coordinator – Niyazova Guliyash Balkenovna, Head of the Project for Institutional and Specialized Accreditation of Universities of the Independent Agency for Accreditation and Rating (Nur-Sultan, Republic of Kazakhstan).

#### (III) REPRESENTATION OF THE EDUCATIONAL ORGANIZATION

Grozny State Oil Technical University named after Academician M.D. Millionshchikov" in the implementation of educational programs in the areas of training carries out its activities in accordance with:

- Federal Law No. 273-FL of December 29, 2012 "On Education in the Russian Federation" (Federal Law "On Education in the Russian Federation" of December 29, 2012 N 273-FZ (last edition) / Consultant Plus (consultant.ru));

- Federal state educational standards of higher education in the areas of preparation of the Federal State Educational Standard of Higher Education (3 ++) in the areas of specialty - APPLIED GEOLOGY, MINING, OIL AND GAS BUSINESS AND GEODESY - http://fgosvo.ru/fgosvo/153/150/26/69;

Order of the Ministry of Education and Science of Russia dated April 05, 2017 No. 301 "On Approval of the Procedure for Organization and Implementation of Educational Activities in Educational Programs of Higher Education – Bachelor's Programs, Specialist's Programs, Master's Programs" (Order of the Ministry of Education and Science of the Russian Federation dated April 5, 2017 No. 301 "On Approval of the Procedure for Organization and Implementation of Educational Activities in Educational Programs of Higher Education - Bachelor's Programs, Specialist's Programs, Master's Programs" (did not enter into force) (garant.ru));

- regulatory and methodological documents of the Ministry of Science and Higher Education of the Russian Federation (Regulatory documents of the Ministry of Education and Science of the Russian Federation - Orders (rzgmu.ru));

- Charter of the University (approved by Order No. 967 of November 16, 2018, as amended on January 10, 2020 (Order No. 7), April 7, 2020 (Order No. 562), ustav\_gsotu.pdf (gstou.ru), ustav\_gsotu\_izm1.pdf (gstou.ru), ustav\_ggntu\_izm2.pdf (gstou.ru));

- Certificate of state accreditation (No. 1731 dated March 10, 2016, accredited until March 10, 2022, Svidetelstvo.pdf (gstou.ru));

– local regulations of FSBEI HE "GSOTU named after. Academician M.D. Millionshchikov" (Documents. FSBEI HE "GSOTU named after academician M.D. Millionshchikov" (gstou.ru)

Program of strategic development of FSBEI HE "GSOTU named after A.I. acad. M.D. Millionshchikov" until 2030 (approved by the Rector on September 2, 2021, protocol No. 1). https://gstou.ru/files/localnie\_akti/strategiya\_razvitiya.pdf

FSBEI HE GSOTU named after. acad. M.D. Millionshchikov" is a higher educational institution established to carry out educational, scientific, social and other functions of a non-commercial nature. The main activities of the University are educational, research, social activities.

Mission GSOTU named after. acad. M.D. Millionshchikov - the development of human capital and the formation of competitive personalities to solve regional and global problems.

The history of the formation of FSBEI HE "GSOTU named after acad. M.D. Millionshchikov":

1920 - Higher Oil College;

1922 - Oil Practical Institute;

1929 - Grozny Oil Institute;

1973 - Grozny Oil Institute. Academician M.D. Millionshchikov;

2002 - State Educational Institution of Higher Professional Education "Grozny State Oil Institute named after Academician M.D. Millionshchikov"

2011 - Federal State Budgetary Educational Institution of Higher Professional Education "Grozny State Oil Technical University named after Academician M.D. Millionshchikov";

2015 - Federal State Budgetary Educational Institution of Higher Education "Grozny State Oil Technical University named after Academician M.D. Millionshchikov.

The title document of the university - License for educational activities No. 1505 06/19/2015, series 90L01 No. 0008503 (validity period - indefinitely).

The current status of the University's accreditation is certified by the State Accreditation Certificate dated March 10, 2016, registration number 1731 series 90A01 No. 0001824 (valid until March 10, 2022).

At the University, the educational process is carried out according to a multi-stage system: bachelor's, specialist's, master's and postgraduate studies. The educational process is fully implemented on the basis of the credit system of education.

The structure of the University includes 5 institutes (applied information technologies; oil and gas; digital economy and technological entrepreneurship; construction, architecture and design; energy), an institute for advanced training and retraining of personnel, a faculty of secondary vocational education, a lyceum, a preparatory department for foreign citizens, vocational training center, distance and e-learning center.

The contingent of students as of December 30, 2020 (for all educational programs being implemented): full-time education - 8286; part-time education - 1650; part-time education - 5262 students.

Library resources. The university has 5 departments of the scientific and technical library: the department of educational and scientific literature of IAIT the department of educational and scientific literature with the electronic resources sector, the department of educational and scientific literature, the service department with a reading room, the general reading room with the electronic resources sector, the total area of which is 37 sq.m. for 110 seats (Material and technical support and equipment of the educational process. GSOTU named after academician M.D. Millionshchikov (gstou.ru)). The University operates an electronic library system IPRBooks (license agreement No. 8048/21 until 07/01/2022), Lan (SEB Agreement NV-247 until 12/31/2023), Multidisciplinary educational resource "Student Consultant", which contains full-text scientific, educational and educational materials. The volume of the library fund as of 01.10.2021 on physical (tangible media) is 124,765 copies, of which educational publications - 104,342 copies, scientific publications - 20,423 copies. By subscription, the library has 1245 copies available. and 1042 copies. names of magazines and newspapers. On electronic media 17245 copies, audiovisual documents - 1042 copies.

According to EP 21.05.01 Applied geodesy, specialization "Engineering geodesy" the volume of the fund of educational and educational literature: number of titles - 389 units, number of copies - 2921 units; number of electronic publications: 340 titles.

Brief description of the accredited EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy".

The implementation of the EP is carried out by the Institute of Construction, Architecture and Design, the Department of Geodesy and Land Cadastre (DGLC), which was formed in 1920 on the basis of the Faculty of Geodesy and had the original name "Applied Geodesy".

Forms of education - full-time and part-time, the terms of study are 5 and 6 years, respectively. The implementation of the EP is carried out in Russian.

Previous accreditation: Certificate of state accreditation issued by the Federal Service for Supervision in Education and Science No. 1731 dated March 10, 2016, series 90A01 No. 0001824, valid until March 10, 2022.

The staff of the department GLC.

The total number of teachers of the department as of 01.10.2021 is 15 (full-time - 8) people, including: 3 - Doctor of Science, 3 - Candidates of Science, including 2 teaching staff is a representative from production.

The contingent of students of the EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" by form of education:

- 2020: full-time education - 15 people, part-time education - 17 people.

- 2019: full-time education - 19 people, part-time education - 14 people.

- 2018: full-time education - 15 people, part-time education - 11 people.

- 2017: full-time education - 15 people, part-time education - 11 people.

- 2016: part-time education - 16 people.

<u>The purpose of the EP</u> is the professional training of specialists in the field of geodesy, corresponding to the modern needs of society and contributing to the effective professional activity of a socially mobile, purposeful, organized, civil position, tolerant, ready to continue education and be included in innovative activities on the basis of mastering general cultural, general professional and professional competencies in accordance with the requirements of the Federal State Educational Standard of Higher Education.

<u>Employment of graduates</u> for 2020 according to the accredited EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" -2020 -75%.

Upon graduation, graduates are employed in organizations and institutions: the Ministry of Construction and Housing and Communal Services of the Chechen Republic, the Ministry of Property and Land Relations, the Ministry of Highways of the Chechen Republic, State Unitary Enterprise "Chechengrazhdanproekt", LLC "Elravis", LLC "Yug-Stroy", LLC "MegaStroyInvest" ", LLC "AgroStroyAlliance", LLC "SK ChechenStroy", LLC "Mosque Stroy", NJSC "IST Kazbek", etc. Graduates of the EP have the opportunity to continue their studies in graduate school in the scientific specialty 1.6.22 Geodesy (Earth Sciences).

Academic mobility for the accredited study program for the period 2016-2021 - missing.

The main scientific directions of the GLC department are:

– geodetic support for geodynamic monitoring of hazardous processes and phenomena that contribute to the emergence of crisis situations;

- geodetic monitoring of the stress-strain state of the earth's crust and its surface, buildings and structures, caused by natural and man-made factors;

- geodetic support for the restoration of the operational reliability of buildings and structures.

### (IV) DESCRIPTION OF THE PREVIOUS ACCREDITATION PROCEDURE

Educational program 21.05.01 Applied geodesy, profile "Engineering geodesy" is submitted for external examination presented in IAAR for the first time.

The work of the EEC was carried out on the basis of the approved Program of the on-line visit of the external expert commission for international program accreditation of educational programs of the Grozny State Petroleum Technical University named after Academician M.D. Millionshchikov from 26 to 28 October 2021.

In order to coordinate the work of the EEC, on October 21, 2021, an introductory on-line meeting was held, during which powers were distributed among the members of the commission, the schedule of the visit was clarified, and agreement was reached on the choice of examination methods.

In order to obtain objective information on evaluating the activities of the University, the members of the EEC used such methods as studying documentation, visual online inspection,

observation, interviewing employees of various structural units, teachers, students, graduates and employers, questioning the teaching staff, students.

To obtain objective information about the quality of educational programs and the entire infrastructure of the university, to clarify the content of self-assessment reports, online meetings were held with the Rector, vice-rectors of the university in areas of activity, heads of structural divisions, directors of institutes, heads of departments, teachers, students, graduates, employers. A total of 39 representatives took part in the meetings (Table 1).

Table 1 - Information about employees and students who took part in meetings with the EEC IAAR

	Participant category	Quantity
	Rector	1
	Vice-Rector's Corps	5
	Heads of structural divisions	8
	Institute directors	5
	Heads of departments	5
Т	Teachers	4
L	Students	5
	Graduates	5
	Employers	1
	Total	39

During the online tour, the members of the EEC got acquainted with the state of the <u>material</u> <u>and technical base</u> through a video file, which presents the training and lecture audiences of the Department of Geodesy and Land Cadastre, the STC "Geodesy, Cartography and Cadastre", the laboratory for automation of engineering and geodetic surveys, the laboratory for photogrammetric works.

At the online meeting of the EEC IAAR with the target groups of the University, the mechanisms for implementing the policy of the university were clarified and certain data presented in the self-assessment report of the university were specified.

During the accreditation period, the experts attended an online lecture on the discipline Satellite Systems and Positioning Technologies (Doctor of Technical Sciences, Associate Professor, Gairabekov I.G.

EEC experts watched a video about the bases of practice, and also asked questions in an online format to the heads of the following partner organizations: Elravis LLC.

In accordance with the accreditation procedure, an online survey of 53 teachers and 42 students was conducted.

In order to confirm the information presented in the Self-Assessment Report, the working documentation of the University was requested and analyzed by external experts. Along with this,

the experts studied the Internet positioning of the University through the official website of the university (https://gstou.ru/).

As part of the planned program, recommendations for improving the accredited educational program of the Grozny State Oil Technical University named after Academician M.D. Millionshchikov, developed by the EEC based on the results of the examination, were presented at an online meeting with the management on 10/28/2021.

#### (VI) COMPLIANCE WITH INTERNATIONAL ACCREDITATION STANDARDS

#### 6.1. Standard 1. QUALITY ASSURANCE POLICY

Standard:

The educational organization should have a published quality assurance policy which is part of their strategic management. Internal stakeholders should develop and implement this policy through appropriate structures and processes with the involvement of external stakeholders.

#### Evidence

As part of the strategic development of the University to ensure the quality of educational and other activities in 2019, the process of developing a quality management system began in accordance with the national standard of the Russian Federation for a quality management system - GOST R ISO 9001-2015 Quality management systems. Requirements. (ISO 9001-2015). The policy pursued at the university in the field of education quality is represented by regulatory documents located on the official website of the University https://gstou.ru/inf./document/.

The University's education quality management system is based on a process approach and includes three levels: administrative, academic, expert and evaluation. At the administrative and managerial level, local regulations are being developed that regulate issues of quality and quality control of education, as well as coordination of interaction with teams of scientific and pedagogical workers and independent expert bodies. The main tasks at the academic level are the development of the content of the EP and participation in their implementation in accordance with the established requirements for the quality of education.

At the expert-evaluative level, an objective internal and external assessment of the quality of the development and implementation of the EP, education in general, educational and scientific activities should be carried out.

The coordinating function in the education quality assessment system at GSOTU is performed by the Department for Educational and Methodological Work (DEMW), which developed the "Regulations on the internal independent assessment of the quality of education" (approved by the First Vice-Rector of GSOTU at the meeting of the EMC on June 26, 2021, protocol No. 10).

The regulation was developed in accordance with the Guidelines for organizing and conducting in educational institutions of higher education an internal independent assessment of the quality of education in educational programs of higher education - undergraduate programs, specialist programs and master's programs (Letter dated February 15, 2018 No. 05-436) and with regulations RF.

"Regulations on the intra-university system for monitoring the quality of education" was developed on the basis of:

- Federal Law of December 29, 2012 No. 273-FL "On Education in the Russian Federation";

- Federal state educational standards of higher education;

- Charter GSOTU them. acad. M.D. Millionshchikov;

- Regulations on the procedure for organizing and implementing educational activities for educational programs of higher education - bachelor's programs, specialist's programs, master's programs at GSOTU. acad. M.D. Millionshchikov.

Stakeholders take part in the implementation of measures for the internal independent assessment of the quality of education: students, faculty, administration of the University and other interested parties (representatives of employers' organizations and professional communities, University graduates).

The internal system for assessing the quality of education is a set of measures for a comprehensive analysis and objective assessment of the content, organization and quality of the educational process. The internal system for assessing the quality of education at the University is implemented in the form of monitoring the quality of basic educational programs.

The main priority of the University is the commitment to the education quality policy. The organization and conduct of an internal independent assessment of the quality of training of students at the University is based on the following principles:

- openness and competence of management, transparency in decision-making and distribution of resources;

- transparency, objectivity, reliability, completeness and consistency of information about the quality of training of students;

- taking into account the individual characteristics of the development of students in assessing their results;

- availability of information for various consumer groups on the state and quality of training of students

The university carries out an independent assessment of the quality of training of students within the framework of:

- current, midterm and intermediate certification of students in disciplines (modules);

- intermediate certification of students based on the results of internships;

- intermediate certification of students based on the results of term papers and projects, as well as participation in project activities;

- conducting an input control of the level of preparedness of students at the beginning of the study of the discipline (module);

-measures to control the availability of formed learning outcomes for students in previously studied disciplines (modules);

- state final certification of students.

An internal independent assessment of the quality of work of university teaching staff involved in the implementation of the EP is carried out within the framework of:

- holding competitions of pedagogical skills;

- systemic monitoring of the level of qualification of pedagogical workers;

- analysis of the portfolio of professional achievements of teaching staff;

- procedures for assessing the quality of work of teaching staff by students.

Elements of an external evaluation system include, with the participation of both internal and external stakeholders:

- federal monitoring of the effectiveness of the activities of universities, providing an assessment of the fulfillment of the requirements of the consumer represented by the state;

- state accreditation, the purpose of which is to establish the compliance of the content, the level of quality of training of graduates with the requirements of federal state educational standards (hereinafter - FSES);

- state final certification of graduates, the purpose of which is to assess the quality of mastering by graduates of the main educational program, to establish the level of preparation of university graduates for the implementation

professional tasks and compliance of his preparation with the requirements of the Federal State Educational Standard.

The control measures of the monitoring system are systematic, planned, operational, coordinated, and cover all structural divisions of the university. The results of monitoring control measures are presented in the form of analytical reports, reports, memos, etc.

The analytical material contains a statement of facts, conclusions and, if necessary, proposals for improving the quality of the educational process.

According to the results of control, depending on its level, goals and objectives, management decisions are made. The results of the control are the basis for: organization and implementation of corrective and preventive actions, actions to improve the quality of the educational process at the university, planning the activities of the university for the appropriate period, certification and evaluation of the effectiveness of the work of teaching staff and scientific and pedagogical workers, administrative and managerial personnel.

Improving the quality of the EP is ensured by changing the internal content: adjusting elective disciplines, practice programs, topics of final qualifying works, etc.

When approving new EPs, recommendations are taken into account based on the analysis of recent scientific achievements, training and evaluation activities, the opinions of internal and external stakeholders:

Minutes of the meeting of the council of employers of GSOTU with the involvement of representatives of the real sector of the economy of the region: the Office of Rosreestr of the Chechen Republic, LLC "Elravis", the Ministry of Highways of the Chechen Republic, STC KP "Geodesy, Cartography and Cadastre" (Minutes of the meeting of the council of employers of GGNTU No. .).

- Minutes No. 1 of the meeting of the department "Geodesy and Land Cadastre" of the Faculty of Civil Engineering of the Grozny State Oil Technical University named after Academician M.D. Millionshchikov dated 08/30/2018 (consideration of questions on updating, correction, revision of the educational program 21.05.01 Applied geodesy; making changes to educational programs, curricula, work programs).

- Protocol No. 1 of the meeting of the department "Geodesy and Land Cadastre" of the "Institute of Construction, Architecture and Design" of the Grozny State Oil Technical University named after Academician M.D. Millionshchikov dated 29.08.2019 (consideration of issues on improving the quality of the content of the EP based on the results of the survey, on updating, adjusting, revising the educational program 21.05.01 Applied Geodesy, specialization "Engineering Geodesy").

Protocol No. 1 of the meeting of the department "Geodesy and Land Cadastre" of the "Institute of Construction, Architecture and Design" of the Grozny State Oil Technical University named after Academician M.D. Millionshchikov dated 27.08.2020 (consideration of the issue of improving the quality of the content of the EP based on the results of the survey, on updating, adjusting, revising the educational program 21.05.01 Applied Geodesy).

- Extract from the protocol No. 1 dated 09/02/2021. Question "On amendments to the OP VO 21.05.01 Applied Geodesy, specialization "Engineering Geodesy".

The conclusions of the EEC on this standard were confirmed in the reports and dialogues held at the meetings with the administration and management of the departments of GSOTU:

1. Interview with the rector of GSOTU dated October 26, 2021;

- 2. Meeting with vice-rectors of GSOTU dated October 26, 2021;
- 3. Meeting with the heads of structural divisions of GSOTU dated October 26, 2021;
- 4. Interview with directors of institutes, 26.10.2021;

5. Interview with heads of departments dated October 26, 2021;

#### Analytical part

The local normative acts in the field of quality presented in the evidence part are formed and discussed at joint meetings of administrative divisions, departments and institutes with the participation of the University management and are approved at meetings of the Academic Council of the University. The university has appointed responsible for quality for each educational program. To determine the level of satisfaction with the policy of ensuring the quality of education at the University, surveys are conducted among the teaching staff, students, graduates and employers. The University has a Department for Educational and Methodological Work, which regularly monitors the quality of education at the university.

The self-assessment report of EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" is accompanied by the results of monitoring the survey (internal and external assessment) of assessing the level of satisfaction with the quality of the EP for 2020-2021.

In order to determine the quality of the EP to the requirements of the modern labor market, representatives of the Office of the Rosreestr of the Chechen Republic, Elravis LLC, the Ministry of Highways of the Chechen Republic, the Scientific and Technical Center KP "Geodesy, Cartography and Cadastre" took part in the meeting of the GLC department.

On EP 21.05.01 Applied geodesy, specialization "Engineering geodesy" reviewing was received by the General Director of LLC "Elravis" Elsiyev S.V.

The management of the EP did not provide information and examples of participation in the development of the EP by other external stakeholders - representatives from international experts, foreign educational organizations, foreign professional communities, etc.

The work of the EEC revealed the absence of a published quality assurance policy on the official website of the Education Organization, which should be part of the strategic management of the University.

The management of the University and EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" did not present a plan to prevent and overcome risks in order to improve the activities of the university and improve the quality of educational services.

#### **EEC recommendations:**

1. By the beginning of the 2nd semester of the 2021-2022 academic year, the management of the university should develop, approve, implement and publish the Policy in ensuring the quality of the university.

2. From the 2022-2023 academic year, the leadership of the EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy", in addition to national experts, should involve representatives from international experts, foreign educational organizations, foreign professional communities, etc. in reviewing and conducting external examinations of the EP.

3. The management of the university should analyze and systematize the impact of risks on the activities of the University. Based on the analysis, develop a long-term plan (for 5 years) to prevent and overcome risks in order to improve the activities of the university and improve the quality of educational services and begin its implementation from the 2022-2023 academic year.

4. To the management of EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" in the work plan of the department to include a section with the assessment and management of possible risks in the implementation of the EP, indicating the possible consequences in case of failure to take and (or) timely response measures, as well as with a description risk management mechanisms and measures and start its implementation from the 2022-2023 academic year.

Conclusions of the EEC according to the standard "Quality Assurance Policy" accredited educational program 21.05.01 Applied geodesy, specialization "Engineering geodesy" - needs improvement.

#### 6.2. Standard 2. DEVELOPMENT AND APPROVAL OF THE PROGRAM

#### Standard:

An educational organization must have mechanisms for the development and approval of its programs. Programs should be designed in accordance with established objectives, including intended learning outcomes. The qualifications resulting from the completion of the program must be clearly defined as well as explained and must correspond to a certain level of the national qualifications framework in higher education and, therefore, the framework of qualifications in the European Higher Education Area.

#### Evidence

The educational programs implemented at the University are developed in accordance with the Federal State Educational Standards for Higher Education (FSES HE) and taking into account the requirements of the relevant professional standards.

The management of the University has determined the procedures for the development, approval and examination of the EP, as well as the procedure for reviewing curricula, work programs of disciplines and practices, which are enshrined in the Regulations on the procedure for the development and approval of educational programs of higher education, approved by the Acting Rector of GSOTU M.Sh. Mintsaev (https://gstou.ru/sveden/document/).

The structure of the EP consists of the main characteristics, the curriculum, the calendar curriculum, the work programs of disciplines and practices, assessment tools and methodological materials, the GIA program.

When developing EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy", the requirements of the labor market, the mission of the University and the goals of its strategic development are taken into account. The developers of the EP are the working groups, which are headed by the head of the EP - the head of the department of the GLC.

The University has introduced a point-rating system (Regulations on the point-rating system for evaluating a student's educational activities - https://gstou.ru/files/localnie\_akti/pologeniya/pologenie\_o\_brs.pdf), which is a necessary element for the implementation of the educational process of a competence-oriented EP at basis of the credit system. Intermediate certification is assessed on a 5-point scale with the possibility of its subsequent conversion into the scale of the European Transfer and Accumulation System (ETAS).

Representatives of employers (Elsiev Saidali Vakhaevich, General Director of Elravis LLC; Temirsultanov Abbas Alievich, Deputy Minister of Highways of the Chechen Republic, Munaev S-E, head of the testing laboratory of the State Unitary Enterprise PI Mindorstroyproekt Ministry of Highways of the Chechen Republic) participate in the SEC, in reviewing the educational program, provide bases of practice for students.

Improvement of the educational process in the conduct of practices and the implementation of the HQW is considered at a meeting of the Council of Employers of GSOTU with the involvement of representatives of the real sector of the region's economy: the Office of the Federal Register of the Chechen Republic, Elravis LLC, the Ministry of Highways of the Chechen Republic, the STC KP "Geodesy, Cartography and Cadastre" (Protocol meetings of the Council of Employers of GSOTU No. 2 of 06/03/2021).

Every year, at the meetings of the Department of the GLC, questions are considered on updating, adjusting, revising the educational program 21.05.01 Applied geodesy:

- Minutes No. 1 of the meeting of the department "Geodesy and Land Cadastre" of the Faculty of Civil Engineering of the Grozny State Oil Technical University named after Academician M.D. Millionshchikov dated 08/30/2018 - Question 2 - Consideration of issues on updating, adjusting, revising the educational program 21.05.01 Applied geodesy. Decided: To make changes to educational programs, curricula, work programs.

Protocol No. 1 of the meeting of the department "Geodesy and Land Cadastre" of the "Institute of Construction, Architecture and Design" of the Grozny State Oil Technical University named after Academician M.D. Millionshchikov dated 29.08.2019 - Question 2 - Consideration of issues to improve the quality of the content of the EP based on the results of the survey, to update, adjust, revise the educational program 21.05.01 Applied geodesy, specialization "Engineering geodesy". Resolved: To take note of the information.

Protocol No. 1 of the meeting of the department "Geodesy and Land Cadastre" of the "Institute of Construction, Architecture and Design" of the Grozny State Oil Technical University named after Academician M.D. Millionshchikov dated 27.08.2020 - Question 2 - Consideration of issues to improve the quality of the content of the EP based on the results of the survey, to

update, adjust, revise the educational program 21.05.01 Applied geodesy. Decided: to update the EP, work programs in accordance with changes in the curricula.

The issue "On amendments to the GP HE 21.05.01 Applied geodesy, specialization "Engineering geodesy"" was considered at a meeting of the Academic Council of GSOTU - Extract from the protocol No. 1 dated 02.09.2021.

To improve and update educational programs, the management of the EP constantly conducts surveys among students, teachers, graduates and employers.

The conclusions of the EEC on this standard were confirmed in the reports and dialogues held at meetings with the administration, management of departments, teaching staff, students, employers and graduates of GSOTU:

1. Interview with the Rector of GSOTU dated October 26, 2021

2. Meeting with vice-rectors of GSOTU dated October 26, 2021

3. Meeting with the heads of structural divisions of

GSOTU dated October 26, 2021

4. Interview with directors of institutes, 26.10.2021

5. Interview with heads of departments dated October 26, 2021

6. Interview with the teaching staff of the GLC department from 10/26/2021

7. Interview with EP students from 27.10.2021

8. Interview with employers

9. Interview with graduates of the EP from 27.10.2021

Questioning of teaching staff during the work of the EEC showed:

- To what extent does the content of the educational program satisfy your needs? - 100% of respondents indicated good and very good;

- How is the attention of the management of the educational institution paid to the content of the educational program? – 88.7% of respondents indicated good and very good;

- How is the work on the development of new educational programs - 98.1% of respondents indicated good and very good;

- Assess how the knowledge of students obtained at this university corresponds to the realities of the requirements of the modern labor market - 94.3% of respondents indicated good and very good.

#### **Analytical part**

The University has clearly worked out the stages of the formation of the EP, its coordination and approval of the EP. Employers, teachers and students participate in the development and approval of EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy". The management of the EP presented materials on the consideration of issues of improving the educational process in the conduct of practices and the implementation of the GQW.

The self-assessment report of EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" is accompanied by the results of monitoring the quality of the EP. The level of satisfaction with the quality of the EP was assessed by employers, teachers and students. 70% of teachers and students rated the quality of the EP as "good", and 100% of employers rated the quality of the EP as "yery good".

During the online visit, the EEC presented contracts and agreements on cooperation with leading organizations in the real sector of the region's economy.

Online interviews with employers revealed a great interest in providing internship opportunities for trainees at industry enterprises. Employers gave a high assessment of the knowledge, skills and abilities of trainees in the performance of production tasks. A positive review of the OP of the General Director of Elravis LLC is presented.

However, the leaders of the accredited EP did not present the results of the examination of the educational program of representatives from international experts, foreign educational organizations, foreign professional communities and did not provide documentary evidence of the participation of students and graduates in the development and updating of EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy".

In addition, it should be noted that when considering the issues of updating, adjusting, revising and improving the quality of the content of the educational program 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" at all stages of development and approval, no specific proposals for changes in the structural elements of the EP were identified with in order to improve the quality of the EP.

The Expert Commission draws the attention of the EP management to ensuring the functioning of the mechanism for informing about any planned or undertaken actions related to the implementation of the EP, including the results of the revision and amendments to the educational program 21.05.01 Applied Geodesy, specialization "Engineering Geodesy", all interested parties website of the University and in various media.

#### **EEC recommendations:**

1. Every year, starting from the 2022-2023 academic year, it is recommended to involve representatives from students and graduates in the development and updating of EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" with the introduction of specific proposals and their reflection in the minutes of the meeting of collegial governing bodies.

2. The management of EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" is recommended to publish on the site information about any planned or taken actions related to the implementation of the EP, including the results of the revision and amendments to the EP.

Conclusions of the EEC according to the standard "Development and approval of the program" accredited educational program 21.05.01 Applied geodesy, specialization "Engineering geodesy" has <u>a satisfactory position.</u>

### 6.3. Standard 3. STUDENT-CENTERED LEARNING AND ASSESSMENT

#### Standard:

The educational organization must ensure that the program is implemented in such a way as to encourage students to take an active role in the joint construction of the educational process, and that student assessment reflects this approach.

#### Evidence

Student-centered education at GSOTU is aimed at organizing a socio-cultural scientific and educational environment that will allow to fully educate a highly qualified specialist and a comprehensively developed personality.

Creating an environment involves organizing and holding a wide range of different events. Events are held at the level of the University, Institute, Department of the Geodesy Land Cadastre and STC KP "Geodesy, Cartography and Cadastre".

The mechanism for assessing the knowledge, skills and professional competencies of students, including students with disabilities and persons with disabilities, includes procedures for current, intermediate control, intermediate and state final certification and is regulated by documents presented on the official website of GSOTU (https://gstou.ru/sveden/document/):

Regulations on the point-rating system for assessing the educational activities of a student, approved by the rector on October 29, 2020, protocol No. 4 .;

- Regulations on the organization of the use of e-learning, distance learning technologies in the implementation of educational programs, including the implementation of educational programs using exclusively e-learning, distance learning technologies;

Regulations on the procedure for conducting state final certification for educational programs of higher education - bachelor's programs, specialist's programs and a master's program, approved by the rector on 06/11/2019, protocol No. 11;

- Regulations on the formation of a fund of assessment funds for ongoing monitoring of progress and intermediate certification, approved by the Rector on January 24, 2020, protocol No. 1;

- Regulations on the Fund of Evaluation Funds, approved by the Acting Rector on November 08, 2018, protocol No. 2.

GSOTU ensures the objectivity of the mechanism for assessing learning outcomes in the implementation of accredited OP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy".

In case of violation of the final certification procedure and (or) students disagree with the results of the state exam, an appeal procedure is provided. The procedure for filing and conducting appeals is regulated by the Regulations on the procedure for conducting state final certification for educational programs of higher education - bachelor's programs, specialist's programs and a master's program.

The University has developed measures to support students, enshrined in regulatory documents:

- Regulations on scholarships and other forms of material support for students and other categories of students at the GSOTU named after Academician M.D. Millionshchikov;

- Regulations on the procedure for the provision and payment of one-time financial assistance to students at the FSBEI HE GSOTU. acad. M.D. Millionshchikov;

Regulations on scholarships and other forms of material support for students and other categories of students at the GSOTU named after Academician M.D. Millionshchikov.

Students are provided with academic rights and freedoms, which are enshrined in the Internal Regulations for Students, approved by the rector of the GSOTU. acad. M.D. Millionshchikova M.Sh. Mintsaev dated 03/25/2019.

Equal opportunities for students are achieved through the completeness of the educational, methodological, organizational, methodological and information support of the educational process. All students are subject to the principle of gender equality. There is equal access to educational, research and educational activities.

In order to popularize science, early identification and support of talented youth, scientific student societies (SSOs) function: "Surveyor", "Programming Club", "English Language Club "British Bunker"", "Manager-mentor", "Academy of Management" (with 2020) etc.

The mechanism for the participation of students in RW is spelled out in the documented procedure "Regulations on student RW" (approved by the Acting Rector on June 11, 2019, protocol No. 11). The organization of research work during extracurricular time is provided by: vice-rector for scientific work and innovations, head of the department for scientific and innovative work, directors of institutes and heads of departments. The management of the University provides for the participation of students in field events to develop engineering skills. For example, from 11 to 24 July 2021. on the basis of St. Petersburg Mining University, 5 students of the GLC department participated in the program "Engineering Geodesy: Theory and Practice" under the auspices of the International Center "UNESCO" and received diplomas.

GSOTU, a ready-made plan of scientific and information events is formed, and NIRS reports are formed based on the results of the scientific events.

Results of SRWS for the period 2017-2021:

Table 1 - The results of the publication activity of students of the EP 21.05.01 Applied Geodesy (specialization "Engineering Geodesy") for the period 2017-2021

Year	International conferences	Russian conferences
2017	-	-
2018	-	6
2019	5	-
2020	-	2

2021	3	2
Total:	8	10

Employees of the Department of State Land and Land Surveys and the STC KP "Geodesy, Cartography and Cadastre" involve students in grant and economic contract activities. Financing research work is an integral part of the activities of any structural unit of an educational institution. On the basis of the "Boiling Point" of the University, master classes are held on practical skills in using modern automated technologies. The master class was held under the guidance of the chief engineer of Elravis LLC Ikryanov E.V.

Table 2 - Information on the participation of students of the EP 21.05.01 Applied Geodesy (specialization "Engineering Geodesy") in RW for the period 2017-2021

Quantity					
number of published articles / including in rating journals (prints)	participation in contractual work with teaching staff (contracts)	participation in scientific projects (contracts, orders, etc.)	participation in grant programs, international competitions (contracts, orders, etc.)	participation in international conferences	
7	2	0	0	8	

Students of the specialty 05/21/01 Applied Geodesy periodically take additional courses of the British Research Institute of Construction BRE Group with the receipt of training certificates.

Courses for additional professional retraining under the program "Geoinformation Systems" in FSBEI HE "Grozny State Oil Technical University named after V.I. acad. M.D. Millionshchikov" with a diploma of education.

The feedback system and evaluation of learning outcomes is carried out by questioning students and teaching staff on the University website.

Based on the analysis of the results of the survey (feedback) for the 2019/2020 academic year on the implementation of student-centered learning in the EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy", a change in the methodology of teaching disciplines is provided: a shift in emphasis to independent activity and reflection, increased personal responsibility students for learning outcomes; the work program of the discipline "Applied geodesy" has been revised with changes in the use of modern geodetic instruments.

All students of the University have access to electronic library systems (IPR-books, Student Advisor), which contain full-text scientific, educational and educational materials.

The University has an effective information system, including the University website, electronic information and educational environment, groups in social networks, corporate mail, SMS informing, posting information on stands. The conclusions of the EEC on this standard were confirmed in the reports and dialogues held at online meetings at GSOTU:

1. Interview with the rector of GSOTU dated October 26, 2021;

2. Meeting with vice-rectors of GSOTU dated October 26, 2021;

3. Meeting with the heads of structural divisions of GSOTU dated October 26, 2021;

4. Interview with directors of institutes, 26.10.2021;

5. Interview with heads of departments dated October 26, 2021;

6. Interview with EP students from 10/27/2021;

7. Interview with employers of the EP dated 10/27/2021;

8. Interview with graduates of the EP from 27.10.2021

Analytical part

EEC members are presented with regulatory documents regulating the procedure for the formation of elective disciplines - Regulations on the implementation of disciplines for the choice of students in educational programs of higher education - https://gstou.ru/files/localnie\_akti/pologeniya/pologenie\_disciplin\_po\_vyboru.pdf, catalog of elective disciplines for EP 21.05 .01 Applied geodesy, specialization "Engineering geodesy", students' applications for enrollment in elective disciplines.

The presence in the curriculum of EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" of elective disciplines provides students with the opportunity to form an individual learning trajectory, which was confirmed during interviews with the leadership of the EP, heads of structural divisions of the university and students.

However, the analysis of EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" allows us to conclude that it is not flexible enough. The choice of elective disciplines throughout the EP for 5 years of study tends to sharply decrease.

For example, the electiveness of disciplines in the EP 2020 enrollment is observed from the 2nd semester and 14 elective disciplines are offered for the entire period of study, in the EP 2021 enrollment in the curriculum, elective disciplines start from the 6th semester and for the entire period of study - 8 elective disciplines.

Interviews with teachers showed that GSOTU has built a system of material and nonmaterial incentives for students for success in social, educational, sports and scientific activities.

Currently, 8 students of the EP 21.05.01 Applied Geodesy receive an increased academic scholarship (For example, a student of the PG-19 group Khazbulatov Magomed Akhmedovich is an activist of the institute, participates in social and sports events; a student of the group PG-18 Ortsuev Rakhman Nursoltanovich is an excellent student, headman groups).

Students of the EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" take part in research work, speak at conferences, publish articles in co-authorship. The EEC members got acquainted with the list of articles published in the journals included in the WoS and Scopus databases.

The management of the EP uses a variety of teaching methods, including interactive ones; multimedia equipment was used when the EEC experts visited the online lecture. The lecture was held in the form of a discussion, the lecturer gave examples, based on the previous material. The teaching staff implementing the EP introduce the results of production activities into the educational process. Students of the accredited EP take an active part in the contractual work of the employees of the GLC department, for example, they participated in the construction of the Urengoyskaya Oil Pumping Station.

Questioning of students showed a high degree of satisfaction in many respects: support with educational materials in the learning process (98.6%); the quality of teaching (100%); the teacher satisfies the requirements of personal development and professional formation (97.6%).

EEC recommendations:

1. In order to form more flexible individual trajectories of students, the educational and methodological management of the university, together with the leadership of the EP, should analyze the content of EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" to consider the possibility of increasing the number of elective disciplines in the EP, reflecting the results the analysis and revision of the EP in the minutes of the meeting of the collegial governing bodies. The implementation period is 2022-2023 academic year.

Conclusions of the EEC according to the standard "Student-centered learning and performance assessment" accredited educational program 21.05.01 Applied geodesy, specialization "Engineering geodesy" - a satisfactory position.

## 6.4. Standard 4. ADMISSION, ACCESS, RECOGNITION AND CERTIFICATION OF STUDENTS

#### Standard:

The educational organization must have predetermined, published and consistently applied rules governing all periods of the student's "life cycle", i.e. admission, performance, recognition and certification.

#### Evidence

The procedure for admission to an accredited EP is regulated by the Order of the Ministry of Education and Science of Russia dated June 15, 2020 No. 726 "On Approval of the Procedure for Admission to Study in Educational Programs of Higher Education - Bachelor's Programs, Specialist's Programs, Master's Programs". Admission rules (including enrollment procedures) to the University are established independently in the part not regulated by the legislation on education and published on the official website programs higher education - undergraduate programs, specialist's programs, master's programs for the 2021/22 academic year, approved by the Rector on 10/28/2020, protocol No. 3, as amended on 02/20/2021, protocol No. 7, 05/27/2021, protocol No. 10). In its activities on the formation of a contingent of students, the admissions committee of GSOTU is guided by the legislation of the Russian Federation and the VND "Regulations on the admissions committee" (approved by the Rector on February 18, 2021, protocol No. 1).

The website of the University Admissions Committee contains information for applicants in accordance with the Rules for Admission to the University (Admission Campaign 2021 (gstou.ru)).

The Rules and Regulations are published on the University website (https://gstou.ru/sveden/files/Pologhenie\_o\_priemnoy\_komissii.pdf,

https://gstou.ru/sveden/files/a)\_Pravila\_priema\_v\_GGNTU\_2021(1).pdf).

The formed contingent of students of the OP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" 2017-2021 account. shows, in general, the maintenance of an average stable enrollment of students (Table 3).

According to the accredited educational program from 2016 to 2020, 5 (five) graduations took place - 51 people.

Academic	Form of study	Total students	Students on	Students on a	Number of
year			a grant	paid basis	expelled
					students
2017-2018	Full-	15/11	0/0	0/1	9/7
	time/correspondenc				
	e				
2018-2019	Full-	15/11	0/0	0/1	8/4
	time/correspondenc				
	e				
2019-2020	Full-	15/14	0/0	0/2	3/5
	time/correspondenc				
	e				

Table 3 - The formed contingent of students of the EP 21.05.01 Applied Geodesy (specialization "Engineering Geodesy") 2017-2021 of the year

2020-2021	Full- time/correspondenc e	15/17	0/0	0/9	0/1
2021-2022	Full- time/correspondenc e	13/12	0/0	0/7	0/0

The University, in accordance with the current legislation, does not cooperate with national centers or other educational organizations on the issues of nostrification of education documents.

Foreign citizens and stateless persons have the right to receive higher education at the expense of budget allocations in accordance with the international treaties of the Russian Federation, federal laws or the quota for the education of foreign citizens and stateless persons established by the Government of the Russian Federation (hereinafter referred to as the quota for the education of foreign citizens), as well as at the expense of individuals and legal entities in accordance with agreements on the provision of paid educational services. During the reporting period, 4 foreign students of EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" were studied.

The mechanism for recognizing the results of students, including those acquired during academic mobility, as well as the results of additional, formal and non-formal education, is normatively fixed in:

- Regulations on the offset of the results of mastering, open online courses and the offset of the results of mastering academic subjects, courses, disciplines (modules) of practices, additional educational programs in other organizations engaged in educational activities (approved by the Rector on October 29, 2020, protocol No. 4).

Regulations on the procedure for organizing and implementing educational activities for additional professional programs, including the organization of training for people with disabilities and persons with disabilities (approved by the Rector on December 24, 2020, protocol No. 5).

- Regulations on the organization of the use of e-learning, distance learning technologies in the implementation of educational programs, including the implementation of educational programs using exclusively e-learning, distance learning technologies (approved by the Acting Rector on January 29, 2019, protocol No. 5).

Regulations on the network form for the implementation of educational programs (approved by the Rector on October 29, 2020, protocol No. 4).

Students of the EP 21.05.01 Applied Geodesy, specialization, "Engineering Geodesy" periodically take additional courses of the British Research Institute of Construction BRE Group with the receipt of training certificates.

Students undergo an internal assessment of the quality of training, which is regulated by:

- Regulations on the intra-university system for monitoring the quality of education, approved by the Rector on September 24, 2020

- Regulations on the internal independent assessment of the quality of education, approved by the First Vice-Rector of GSOTU on June 26, 2021

The assessment of the quality of training is carried out in the form of input control of knowledge, intermediate certification in all disciplines and on the basis of the results of internships, final state certification (representatives of the business community are included in the examination committees) - orders on the composition of the SEC for graduates of EP 21.05.01 Applied geodesy, specialization "Engineering Geodesy" (Elsiev Saidali Vakhaevich, General Director of LLC "Elravis"; Temirsultanov Abbas Alievich, Deputy Minister of Highways of the Chechen Republic, Munaev S-E, Head of the Testing Laboratory of the State Unitary Enterprise PI Mindorstroyproekt, Ministry of Highways of the Chechen Republic), graduates of the University

receive diplomas of completion of the established form. Sample documents on education are approved by the order of the Ministry of Science and Higher Education of the Russian Federation dated 01.10.2013 No. 1100 "On approval of samples and descriptions of documents on higher education and qualifications and annexes to them."

Personnel management accompanies the process of transfer and reinstatement of students, regulated by the Regulations on the procedure for transfer, expulsion and reinstatement of students, approved by the Rector on October 29, 2020. The number of vacancies for admission (transfer) is posted on the University website: https://gstou.ru/sveden/ vacant/.

All students in EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" are provided with practice places, which is confirmed by agreements concluded with specialized organizations, and interviews with employers and students conducted on October 27, 2021 (contracts No. 0621-035 with LLC " Elravis dated 06/15/2021, No. 0721-002 with the Office of the Federal Service for State Registration, Cadastre and Cartography in the Czech Republic dated 07/01/2021, No. 0721-003 with the Ministry of Highways of the Czech Republic dated 07/01/2021, No. 0721-001 with SevKavNIPIneft LLC » dated 07/01/2021) and interviews with students and employers on 10/27/2021.

The University constantly monitors the employment of graduates. The number of graduates of the EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy", provided with jobs in 2020 averaged 75% (according to monitoring conducted by the University).

The procedures for assessing the level of knowledge, the formation of students' competencies are available in electronic form in the interuniversity electronic information and educational environment (http://edu.gstou.ru/)

#### **Analytical part**

As a result of the analysis of the submitted documents, the EEC notes that GSOTU has predetermined, published and consistently applied rules governing all periods of the student's "life cycle", i.e. admission, performance, recognition and certification. The university has a Department of International Projects and Scientific and Technical Information, which is engaged in the development of cooperation between GSOTU and foreign educational and scientific centers, the implementation of joint programs, support for the international mobility of teachers, students and university staff working in the direction of international activities.

Students of GSOTU have the opportunity to study at universities in the region, as well as at universities in near and far abroad as part of the "academic mobility" program. To do this, the university operates the "Regulations on the offset of the results of mastering open online courses and the offset of the results of mastering academic subjects, courses, disciplines (modules) of practices, additional educational programs in other organizations engaged in educational activities" (approved by the Rector on October 29, 2020, protocol No. 4). During an interview with students and alumni conducted by EEC experts on 10/27/2021, the participants expressed their complete satisfaction with the clarity of the applied rules governing all periods of the student's "life cycle": admission, academic performance, recognition in a professional environment.

<u>However</u>, at the time of the international accreditation, there was a lack of results in the implementation of the "academic mobility of students" program. Graduates and students of the EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" in an interview with the members of the EEC reported that the presence of foreign experience in solving professional problems would allow them to be more competitive in the labor market.

#### **EEC recommendations:**

1. The leadership of EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" is recommended to define indicative indicators in planning documents and plan for the next 5 years activities to implement the item: "Participation of students in the program" incoming and outgoing / external and internal academic mobility ", including in an online format, and start implementation from the 2022-2023 academic year.

Conclusion of the EEC according to the criterion of the standard "Admission, progress, recognition and certification of students" for EP 21.05.01 Applied geodesy, specialization "Engineering geodesy" - a satisfactory position

#### 6.5. Standard 5. TEACHING STAFF

#### Standard:

The educational organization must have objective and transparent processes for the recruitment, professional development and development of all staff, which allow them to ensure the competence of their teachers.

#### Evidence

The personnel policy of the University is reflected in the local regulations: Strategic Development Program of the Federal State Budgetary Educational Institution of Higher Education acad. M.D. Millionshchikov" until 2030, approved by the rector on 02.09.2021, the Collective Agreement of GGNTU named after A.I. Academician M.D. Millionshchikov for 2018-2021, approved by the Acting Rector and the chairman of the trade union organization on September 28, 2018, Regulation on an effective contract (link); Regulations on the procedure for holding a competition for filling the positions of scientific workers in the Grozny State Oil Technical University named after Academician M.D. Millionshchikov" (link);

Regulations on the procedure for filling the positions of teaching staff related to the teaching staff (link); Internal labor regulations (link). All documents are posted on the University website.

The procedure for planning and calculating the working time of scientific and pedagogical workers of the University, including the harmonic ratio of educational (all types of contact work: lecture and seminar classes, intermediate certification, consultations, etc.), scientific, creative, educational, methodological, organizational, educational work is determined by the Procedure for planning the working time of scientific and pedagogical workers.

The implementation of the specialist's program is provided by the teaching staff of the University, as well as persons involved in the implementation of the EP on the terms of a civil law contract (Reference on scientific and pedagogical workers for OP 21.05.01 Applied Geodesy).

The total number of teachers of the department as of 01.10.2021 is 15 (full-time - 8) people, including: 3 - Doctor of Science, 3 - Candidates of Science, including 2 teaching staff is a representative from production (Shaipov Abu Lechievich - Deputy Head of the Office of the Federal State Registration, Cadastre and Cartography Service for the Chechen Republic; Munaev Said-Emin Magomedovich - Head of the Testing Laboratory of the State Unitary Enterprise PI Mindorstroyproekt, Ministry of Highways of the Chechen Republic).

Table 4 - The staffing of the teaching staff of the department "GLC" for the period 2021-2022 academic year of the year

Rank	Кол-во
Ph.D	3
PhD	3
Doctor PhD	_
master	2

No degree	9
degree, %	40 %
including:	
professors	2
Associate professors	4
senior lecturers	5
teachers	0
Assistant	4
Part-time workers, including production workers	3/2
Average age of teaching staff by department, years	43,9
Total people in the staff of the department	15

The department "Geodesy and Land Cadastre" is a graduate for (http://isad.gstou.ru/?page\_id=755):

Specialties 21.05.01 - Applied Geodesy, specialization "Engineering Geodesy";

Areas of training for bachelors 21.03.02 - Land management and cadastres, profiles "Land Cadastre" and "Real Estate Cadastre";

Directions for the preparation of masters 21.04.02 - Land management and cadastres, directions "Real Estate Cadastre";

Areas of training for the postgraduate program 05.06.01 - Earth Sciences, profile "Geodesy".

At the department, economic contracts are concluded annually with enterprises and organizations, scientific work is carried out with the involvement of ISAID teachers. For example:

1. "Organization and monitoring of foundation settlements and deformations of buildings and structures at the construction site of Groznenskaya TPP". The amount of financing is 3,000,000 rubles. Performers - Gairabekov I.G., Kaimov Sh.S-E., Masaev Z.S.

2. Engineering and geodetic surveys for the object "Ski infrastructure on the north-oriented slope of the VTRK Veduchi". Project initiator: Elravis Limited Liability Company (link). The amount of financing is 300,000 rubles. Performers - Gairabekov I.G., Kaimov Sh.S-E., Ibragimova E.I.

3. "A set of works (pushing through the case, laying the ductile iron pipe, arranging wells, backfilling, arranging the foundation) for laying external networks of household sewerage at the GROZNY MALL shopping center." Project initiator: Apex Telecom LLC (link). The amount of financing is 200,000 rubles. Performers - Kaimov Sh.S-E., Mishiev A.T.

4. Engineering and geodetic surveys at the facility "Development of design estimates for the reclamation of an unauthorized landfill in the area of the village. Irs, Leninsky district of Grozny. Project initiator: Ministry of Natural Resources and Environmental Protection of the

Chechen Republic. The amount of financing is 280,000 rubles. Performers - Kaimov Sh.S-E., Ibragimova E.I., Ortsuev R.N.

5. Engineering and geodetic surveys at the site "Establishing an industrial garden". Project initiator: List LLC. The amount of financing is 50,000 rubles. Performers - Kaimov Sh.S-E., Ibragimova E.I., Makhmudov S-M.B.

The average annual amount of funding for scientific research per scientific and pedagogical employee (in rates reduced to integer values) of an organization implementing the main educational program in the 2020/2021 academic year for each accredited educational program is 66,000 rubles.

To realize the scientific potential of the teaching staff, a regular set of publications is carried out in the journal "Vestnik GSOTU. Engineering Sciences" (frequency - 4 times a year), under the guidance of the editor-in-chief, Doctor of Technical Sciences, Professor M. Mintsaev).

Publications	2017	2018	2019	2020	2021
<u>1. Publications in journals</u> : - with a non-zero impact factor, etc. including	52	40	36	32	42
HAC	8	10	6	9	12
WoS, Scopus	8	6	11	6	4
NBDSC	36	24	19	17	26
2. Publications in university journals and other publications of the Russian Federation	8	9	11	15	16
3. Patents, AU	0	1	1	0	0
4. Textbooks, teaching aids / including in English.	8/0	10/0	9 / 0	6/0	8 / 0
5. Monographs / including in English.	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0

Table 5 - Scientific publications of the teaching staff of the department "GLC"

Teachers undergo professional development every three years. For the 2019-2020 academic year, the number of 9 teachers of the GLC department underwent advanced training and retraining.

Since 2019, the Regulation on an effective contract has been introduced for the teaching staff, on the basis of which all the achievements of the teacher for the previous reporting period are taken into account: educational and scientific work, publications, advanced training, and the rating of the activities of the teaching staff of the University is carried out. To stimulate the professional and personal development of young teachers, the competition "Teachers 20.35" was introduced.

The conclusions of the EEC on this standard were confirmed in the reports and dialogues held at online meetings with the administration and employees of GSOTU departments:

1. Interview with the rector of GSOTU dated October 26, 2021;

2. Meeting with vice-rectors of GSOTU dated October 26, 2021;

3. Meeting with the heads of structural divisions of GSOTU dated October 26, 2021;

4. Interview with directors of institutes, 26.10.2021;

5. Interview with heads of departments dated October 26, 2021;

6. Interview with the teaching staff of the GLC department from 10/26/2021

#### Analytical part

In the course of interviews with the faculty and heads of departments of the university and the SLC department, members of the EEC noted the satisfaction of employees with the current personnel policy, their awareness of the procedures of the current personnel management system.

The teaching staff is the main resource for the implementation of the mission and strategy of the educational organization.

The management of the University, institute and department manages the personnel potential of the teaching staff, taking into account the specifics of the accredited EP.

In 2019, on the basis of the department, the Scientific and Technical Center for Collective Use "Geodesy, Cartography and Cadastre" (STC KP "GLC") was created. The center is equipped with the latest geodetic equipment. Here, along with experienced specialists, students, undergraduates and graduate students of the department form and develop their professional competencies. Currently, 7 people are studying at the department under postgraduate programs (supervisor, Doctor of Technical Sciences, Professor I.G. Gairabekov).

Master classes and practical exercises for students are held on the basis of the Scientific and Practical Center for Geodesy, Cartography and Cadastre (<u>http://isad.gstou.ru/?page\_id=755</u>).

The analysis of the publication activity of the teaching staff of the GLC department corresponds to the high rates of scientific publications in rating publications, but, due to the fact that the department is graduating in four areas of training of three levels of higher education (bachelor's, specialist's and master's), according to publications educational and methodological literature, there is a weak activity (table 5).

In addition, during the expert review of the materials of the accredited study program on the University website, members of the EEC <u>revealed technical errors in the formation of</u> <u>educational and methodological literature</u> in the disciplines of Geodesy, Global Positioning Satellite Systems, Geoinformation Systems, Gravimetry. For example, in the discipline Theory of figures of planets and gravimetry, exhibited on the website of the university, on the title page the name Theory of <u>figures</u>, <u>planets</u> and gravimetry, in the section Educational, methodological and information support of the discipline, the list includes the literature of Raguzin L.M.

Theoretical foundations and practical application of volumetric and gravimetric methods [Electronic resource]: textbook / Raguzina L.M., Mishukova T.G.— Electron. text data.— Orenburg: Orenburg State University, EBS DIA, 2016.— 118 pp.— Access mode: http://www.iprbookshop.ru/61411. 06.03.01 Biology, 06.03.02 Soil science, 03.19.02 Food products from vegetable raw materials, 03.19.03 Food of animal origin, 03.05.06 Ecology and nature management, 03.20.01 Technospheric safety".

These errors were corrected by the staff of the GLC department and materials were presented to the members of the EEC.

ISAiD Development Program for 2021 to 2025 participation in international competitions and grants is planned, mainly in two main areas of the Erasmus + program (international mobility of students and teachers; innovations and best practices).

Partners GSOTU them. acad. M.D. Millionshchikov in the field of scientific and technological, educational and educational cooperation and social partnership are the Ministry of Construction and Housing and Communal Services of the Chechen Republic (Agreement No. 2/st of February 16, 2017), Ministry of Education and Science of the Chechen Republic (Agreement No. 1/st dated February 16, 2017), public, industrial organizations and leading Russian universities engaged in educational activities for the accredited program. However, taking into account the strategic goal of the development of GSOTU - "the transformation of the university from a regional university into a key industry engineering and technology university, as much as possible involved in the global educational and research agenda in the field of security and sustainable development" and the ISAiD Development Program, the leadership of the EP needs to expand the geography of cooperation in universities -partners, going beyond the Russian Federation.

In order for teaching staff to participate in mobility programs, including international ones, it is necessary to carry out work on harmonizing the accredited educational program with the EPs of foreign universities that provide training in the specialty Applied Geodesy.

The EP is provided with qualified teaching staff. Teachers have extensive experience in the field of professional activity, performing, together with the Scientific and Technical Center KP "Geodesy, Cartography and Cadastre", contractual work: a complex of engineering and geodetic surveys at the facility "Ski infrastructure on the north-oriented slope of the Veduchi ATRC"; geodetic control and support for the project "Complex of works (pushing through a case, laying a ductile iron pipe, installing wells, backfilling, laying a foundation) for laying external networks of household sewerage at the GROZNY MALL shopping center; engineering and geodetic work at the facilities of the Ministry of Industry and Energy of the Czech Republic, etc. The teaching staff regularly undergo advanced training in accordance with the requirements of the Ministry of Science and Higher Education of the Russian Federation.

At least 60 percent of the number of teaching staff involved in educational activities in EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" have a scientific degree and (or) academic title.

However, the degree of teaching staff of the GLC department, which implements the educational activities of four levels of higher education and strives to position its educational competencies at the international level in accordance with the strategic development program of GSOTU and the institute, is not sufficient. In accordance with the ISAiD Development Program for 2021 to 2025. it is envisaged "... to increase the percentage of the degree of scientific and technical progress to 50%, to increase the share of doctors of science, professors to 22%, and candidates of science, associate professors to 78%" (http://isad.gstou.ru/?page\_id=2483).

EEC recommendations:

1. The leadership of EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" is recommended to determine indicative indicators in planning documents and plan activities for the next 5 years to fulfill the item: "publication of educational and methodological literature", and begin implementation from the 2022-2023 academic year.

2. The leadership of EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" is recommended to develop an action plan aimed at developing professional cooperation with foreign educational organizations in the EP Applied Geodesy.

3. The leadership of EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" is recommended to develop an action plan aimed at increasing the degree of teaching staff of the GLC department, which implements educational activities in the accredited EP from 40 to 50% and begin implementation from 2022.

Conclusions of the EEC according to the standard "Teaching Staff" for EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy": <u>a satisfactory position.</u>

#### 6.6. Standard 6. EDUCATIONAL RESOURCES AND STUDENT SUPPORT SYSTEM

#### **Standard:**

The educational organization must ensure that there are sufficient, accessible and appropriate learning resources and student support services.

#### Evidence

In order to create an integral system of research, educational, methodological and informational educational process, GSOTU pays great attention to strengthening the material and technical base.

The material and technical base of the University is a building that meets the high requirements and standards of the educational and research process, equipped with modern

scientific and educational laboratories, computer classes and specialized rooms, as well as corresponding to the federal state standard in the direction of training.

The total area of buildings (premises) of the University is 71266.0 m2, including:

1) The area of educational and laboratory premises - 55810.0 m2, including:

- the area of educational premises - 29447.0 m2, of which the area of indoor sports facilities is 3921.0 m2;

- area intended for research units - 1214.0 m2;

- area of utility rooms - 12663.0 m2, of which the area of catering points - 1206.0 m2;

- educational and auxiliary area - 12486.0 m2.

2) The area of hostels - 8623.0 m2;

3) The area of other buildings, premises - 6833.0 m2.

Of the total area of the University, intended for the implementation of the goals and tasks of both educational and scientific, socio-cultural, sports and recreational nature, the total area of ISAID is 6177.7 m2, including:

- area of classrooms - 3563.2 m2;

- area of educational and auxiliary premises - 1878.1 m2;

- area of utility rooms - 736.4 m2.

The innovation cluster of the University consists of two structural divisions - Technopark and High park.

Techno park is a subject of scientific and innovative infrastructure, which creates conditions favorable for the development of production in the scientific and technical sphere. The Techno park is equipped with industrial, laboratory and experimental equipment and is a center for the formation and training of qualified high-tech personnel.

The Techno park of the University combines an innovation and technology center, a technology transfer center, an education quality management center, an innovative scientific and educational center and 9 small innovative enterprises.

Highpark was opened in February 2019 and was created to support innovative entrepreneurship through the formation of a material, technical, socio-cultural, service, financial and other base. The main task of the division is to support and prepare small and medium-sized innovative enterprises for independent activity, commercial development of scientific knowledge, inventions, know-how and science-intensive technologies and their transfer to the market of scientific and technical products in order to meet the demand for these products in the region.

Highpark structure:

1. Prototyping Center:

- IT and CW laboratory;

- Laboratory of robotics;

- UAV laboratory

- Laboratory of additive technologies.

2. Project support center:

- Affiliate network development service;

- Development service;

- Service of scientific and educational services.

3. RIA commercialization center.

4. Idea Generation Center.

The university has its own library, the total area of which is 370 sq.m. The library of GSOTU includes 5 departments:

1) Department of educational and scientific literature;

2) Department of educational and scientific literature;

3) Department of educational and scientific literature with the sector of electronic resources;

4) Service department with a reading room;

5) Common reading room with the sector of electronic resources.

The university is connected to two electronic library systems:

1) ELS IPR BOOKS - a modern resource for obtaining a quality education, providing access to educational and scientific publications necessary for learning and organizing the educational process;

2) the multidisciplinary educational resource "Student's Consultant" (www.studentlibrary.ru) is an electronic library system (ELS) that provides access via the Internet to educational literature and additional materials purchased on the basis of direct agreements with copyright holders.

The University has an ELS GSOTU "University Library Online" - a modern resource for obtaining a quality education, providing access to educational and scientific publications necessary for teaching and organizing the educational process in our educational institution.

The number of computer places in the university library for users is 30. All computers have Internet access. The library organizes local access to its own electronic documents, which include 9 databases of educational, educational and methodical, reference literature and periodicals.

The library provides each student of the University with individual unlimited access from any point where there is access to the Internet to the educational materials of the ELS.

The University has a developed network of information and communication equipment (Table 6).

Name of indicators	Total
Personal computers - total for the University	1297
Notebook	87
Monoblock	43
Multimedia projectors	144
Interactive whiteboards	34
Printers	120
	151
Multifunction devices	171

 Table 6 - Availability of information and communication equipment of GSOTU

The buildings of the University have a high-speed connection to the Internet based on a fiber-optic communication system. All administrative departments and educational laboratories are connected to the Internet. Fiber-optic communication channels between buildings enable fast and uninterrupted access to all resources at speeds up to 1 Gbps. The maximum speed of fixed (wired and wireless) Internet access is 150 Mbit/s.

From April 6, 2020, all students of GSOTU were transferred to training using e-learning and distance learning technologies in accordance with the order of the Ministry of Education and Science of the Russian Federation No. 545 dated April 2, 2020. 2020 "On measures to implement the Decree of the President of the Russian Federation dated April 2, 2020 No. 239 "On measures to ensure the sanitary and epidemiological well-being of the population on the territory of the Russian Federation in connection with the spread of a new coronavirus infection" by organizations subordinate to the Ministry of Science and Higher Education of the Russian Federation (COVID-19).

Training sessions were conducted in accordance with the workload and schedule of training sessions in the web conferencing mode in the systems: Cisco Webex, ZOOM and Skype. The progress of the classes was checked daily by the vice-rector for academic affairs, directors of institutes, the director and employees of the DEMW by attending web conferences of teachers. With the use of e-learning and distance learning technologies, a summer credit-examination session for full-time students, training sessions and a test-examination session for full-time and part-time students were held.

For the organization and implementation of educational activities using e-learning and distance learning technologies (DET), GSOTU has developed local regulatory acts:

- temporary regulation on the point-rating system for assessing the educational activities of a student in the context of preventive measures related to the threat of coronavirus infection;

- regulations for conducting the state final certification at the University in the 2019-2020 academic year using DET.

In October 2019, the "GSOTU Boiling Point" was launched - a project of a national technology initiative, which is opening on the basis of universities, to involve students in project work, for which more than 60 events were held, most of which are educational. In March 2020, the GSOTU Elite Education Project was launched as a "pilot" project based on the GSOTU Boiling Point. The first stage of the project - testing students selected by the directors of the institutes, on the level of knowledge of the English language, has been passed.

Subsequently, the students of this project will have two stages: - in-depth training in the field of technological entrepreneurship; - in-depth study of profile disciplines in the field of the direction chosen by the student. Thus, at the end, subject to the successful completion of control measures, along with a diploma of higher education, the student receives a diploma of additional education, the main advantage of which will be the competitiveness of the graduate in the labor market.

As part of the implementation of areas of educational and social work at the University, events are held at the all-Russian, University, institute and departmental levels. Youth projects are implemented for students: festivals, sports days, competitions of intellectuals, events dedicated to public holidays and memorable dates; events within the framework of the popularization of science, culture and sports; meetings with representatives of law enforcement agencies, medical institutions, the Department of Spiritual and Moral Education; with representatives of legislative and executive power, science, culture and sports, etc.

GSOTU students take an active part in socio-political and cultural events held in the republic. They took an active part and became winners and prize-winners of a number of youth republican and regional projects in the field of science, culture and sports.

The University implements measures of social support for students. First of all, this applies to low-income students, orphans and half-orphans, and the disabled.

Social support for employees and students was of particular relevance during the period of self-isolation. Students in need received additional material assistance in the form of food packages and one-time financial assistance. Students living in a dormitory were exempted from the fee for living in a dormitory for the period of self-isolation, including those students who did not leave the dormitory.

Every year, on the basis of agreements concluded with medical institutions in Grozny, medical examinations and medical examinations of students, faculty and staff of the university are carried out.

Appropriate conditions are created for students with disabilities to ensure the availability of education at GSOTU.

This is how an "inclusive environment" is created - ramps, access to library resources, the official website of the University has a version for the visually impaired, when concluding contracts with electronic library systems, services are included to provide students with audiobooks and teaching aids, versions for the disabled.

Information about the availability of equipped classrooms, objects for conducting practical classes is presented on the official website of the University (https://gstou.ru/sveden/objects/cabinets/21.05.01-inghenernaya-geodeziya\_op0063.html).

Premises for independent work of students of OP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" are equipped with educational furniture, computer furniture, interactive whiteboards, projectors, computer equipment with the ability to connect to the Internet and provide access to the electronic information and educational environment of the University.

Members of the EEC were presented with the Information on the material and technical support of the educational program of higher education of the specialist's program 21.05.01 Applied geodesy, specialization "Engineering geodesy".

The university complies with all fire safety requirements and sanitary and epidemiological standards for educational organizations. There is a sanitary and epidemiological conclusion No. 20.CHR.88.000M.000220.06.19 dated 06/25/2019 and a conclusion on the compliance of the object of protection with the mandatory fire safety requirements dated 10/01/2020. Each educational program includes the mandatory discipline "Life Safety".

Regular analysis of the sufficiency and modernity at the disposal of EP 21.05.01 Applied geodesy, specialization "Engineering geodesy" of classrooms, educational laboratories, computer equipment, software, financial resources is carried out annually twice a year by the relevant services and the leadership of the university. Under ISAID, there is a Scientific and Technical Center for KP "Geodesy, Cartography and Cadastre".

STC KP "Geodesy, Cartography and Cadastre" has modern certified and verified geodetic equipment: electronic total stations, digital levels, GPS receivers, quadrocopters. In the laboratory of the center, classes are held in the disciplines "Engineering and geodetic surveys", "Automated methods of engineering and geodetic works", "Information technologies in geodesy".

The laboratory has licensed software WinPro 10 RUS Upgrd OLP NL Acdmc, WINHOME 10 RUS OLP NL Acdmc Legalization Get Genuine, Office Std 2019 RUS OLP NL Acdmc, Archicad, Autodesk, nanoCAD engineering BIM, "3D Modeling (ACIS)", CredoDAT, PhotoMod , Pix4D, Toposetter pro, Agisoft Fotoscan, UGSC. These products are used to implement disciplines: "Engineering and geodetic surveys", "Automated methods of engineering and geodetic works", "Information technologies in geodesy".

At the end of the academic year, responsible departments, departments, laboratories draw up a list of what is necessary for the purchase, repair, renovation, etc. equipment, and other material support, these expenses form a plan for financial and economic activities for each responsibility center, which contains the entire register of upcoming purchases, expenses, etc. In addition, the annual work plan of the department and the work plan of the Institute reflects all the material resources of the departments with comments on the need to replace, update or repair them.

The annual inventory of property makes it possible to analyze and predict the needs of educational units.

Regular questioning of students and teachers about satisfaction with the conditions of the educational process makes it possible to identify the degree of provision of the educational program with material, technical and information resources.

According to the results of the survey, 97.6% of students are satisfied with the support of educational materials in the learning process; 92.8% of students are satisfied with the level of availability of library resources; the quality of services provided in libraries and reading rooms - 95.2% of students; availability of health care services - 92.8% of students; availability of computer classes - 95.3% of students; availability and quality of Internet resources - 97.6% of students; the overall quality of training programs - 95.2% of students.

#### **Analytical part**

EEC experts got acquainted with the equipment of the material and technical base for the implementation of the accredited OP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy". According to the results of interviewing the management of the EP and students, the EEC noted that the management provides various means of communication and communication

for teaching staff and students. It was noted that WI-FI operates on the territory of the university, there is access to educational Internet resources and to all educational resources on the Internet, the University Library and specialized closed library resources.

The management of the EP provides students with educational and methodological information. However, the modern development of technologies, equipment and software in the field of professional activity of a surveyor requires constant updating of educational and methodological materials.

So, for example, modern high-precision satellite equipment, digital levels and tachometers are used in the educational process, there is specialized software that allows processing the results obtained, but the members of the EEC during the examination did not reveal the presence of textbooks and / or educational and methodological recommendations for working with hardware and software.

#### **EEC recommendations**:

1. The management of EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" is recommended to annually monitor and update the educational and methodological materials of the disciplines of specialization in order to respond in a timely manner to changes in the field of professional activity and improve the quality of the educational process with reflection of information in the minutes of the meetings of the department, as well as broadcast the results of their own educational and methodological

developments introduced into the educational process on the university's web resource.

Conclusion of the EEC according to the criterion of the standard "Educational resources and student support systems" for EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" - a satisfactory position.

#### 6.7. Standard 7. INFORMATION MANAGEMENT

#### **Standard:**

The educational organization must ensure that it collects, analyzes and uses relevant information to effectively manage its activities and its educational programs.

#### Evidence

The University has a system for collecting and analyzing information, there is an Electronic Information and Educational Environment of GSOTU, which includes the following categories:

1) distance learning;

2) electronic library systems;

3) electronic portfolio;

4) results of intermediate certification;

5) educational and methodical literature;

6) work programs of disciplines.

The main tasks of the information and educational environment are:

- organization of access to curricula, work programs of disciplines (modules), practices, funds of evaluation tools, to publications of electronic library systems and electronic educational resources specified in work programs, as well as to educational and methodological materials of disciplines in remote access mode;

- fixing the course of the educational process, current control and intermediate certification (automated system "PRS");

- conducting all types of classes, procedures for assessing learning outcomes, the implementation of which involves the use of e-learning, distance learning technologies;

- the formation of an electronic portfolio of the student, including the preservation of the student's work, reviews and assessments of these works by any participants in the educational process, including employers (the University uses the information and educational portal "4 Portfolio" to form and maintain a portfolio of students' achievements);

- creation of conditions for organizing interaction between participants in the educational process, including synchronous and (or) asynchronous through the Internet.

An employee of the University has developed and implemented an automated system for creating a schedule of training sessions and intermediate assessments for students of all forms of education. An interactive timetable is posted on the University website.

Persons with access to personal data are allowed to work with the EIOS database. The control is carried out by employees of the DUMR, who are responsible for the formation of statistical reports on the activities of the University.

Information about the contingent of students has been published on the official website of GSOTU:

- Information on the number of students, including: the total number of students; on the number of students at the expense of the budget allocations of the federal budget (including the allocation of the number of students who are foreign citizens); on the number of students at the expense of budget allocations from the budgets of the constituent entities of the Russian Federation (including the allocation of the number of students who are foreign citizens); on the number of students at the expense of budget allocations from the budgets of students who are foreign citizens); on the number of students at the expense of budget allocations from local budgets (including the allocation of the number of students who are foreign citizens);

- on the number of students under education agreements concluded upon admission to study at the expense of an individual and (or) legal entity (including with the allocation of the number of students who are foreign citizens); information about the contingent of students (https://gstou.ru/sveden/education/study/);

- Information about the results of the translation; about the results of restoration and deductions (https://gstou.ru/sveden/education/perevod/).

In order to implement the policy and strategy in the field of the quality of training of specialists, the University provides access to all teachers, employees and students to the information resources necessary for work and education. All educational buildings and dormitories have access to the internal network - teaching or educational, depending on the category of the contingent, which contains the work programs of disciplines and practices, the state final certification program, the fund of assessment tools and methodological recommendations for students.

A large amount of information about the University and the institutes is distributed by the Creative Projects Support Department. The formation of a single information space around the University, a positive image of the University, its positioning as a competitive educational institution with advanced scientific and innovative technologies, capable of training highly qualified specialists, are carried out by the relevant structures of the University.

The achievements of students and teachers of the University are covered in the news and announcements of the University and the Institutes on the University website, videos about various events in the life of the University and students, which are posted on the university website, in the news on the state television of the Chechen Republic, on the University's Instagram account the (https:///www.instagram.com/ggntu\_official/), on University's Facebook account (https://www.facebook.com/ggntu), on the University's Vk account (https://vk.com/gstou official).

One of the informative indicators of the quality of training specialists at the University, their compliance with the requirements of a market economy, is the demand for graduates in the labor market and an assessment of the degree of their employment. Increasing efficiency and monitoring the employment of graduates, conducting career guidance work, including the development and distribution of career guidance products - all these issues are the responsibility of the Practice and Employment Department, which is part of the Department for Educational and

Methodological Work. The University website contains information on the proposed vacancies and information on the employment of graduates (https://gstou.ru/alumni/employment.php).

Every year, the institutes hold alumni meetings, within the framework of which a survey of satisfaction with the education received is conducted.

Many graduates are quite successful in their careers, occupy high positions in government and commercial structures. Information about the employment of full-time graduates of the specialty 21.05.01. Applied geodesy for 2020 is presented in Table 7.

### Table 7 - Information about the employment of full-time graduates of the specialty21.05.01 Applied Geodesy

Direction training	Learning program	Graduate 2020	Employment 2020
Applied Geodesy	specialty	16	12

According to the results of the survey of teaching staff, the question of assessing the involvement of teaching staff in the process of making managerial and strategic decisions was "very good" answered by 22.6%, "good" - 69.8%, "unsatisfactory answers" - 7.5%.

According to the results of a survey of students on the question of satisfaction 85.7% answered "completely satisfied" with the quality of training programs in the EP; Satisfaction with the level of availability of library resources was "fully satisfied" by 83.3%; about the usefulness of the website of educational organizations in general and faculties in particular, 92.9% answered "completely satisfied"; 90.5% answered "completely satisfied" about the speed of response to feedback from teachers regarding the educational process.

#### **Analytical part**

The internal system for assessing the quality of education at GGNTU is aimed at ensuring the management of operational, objective and reliable information about the state and development of the educational system, the educational process and the processes accompanying it and ensuring it, about the compliance of intermediate and final results with targets and regulatory requirements. It forms an inseparable integrity with the external evaluation system, as it is focused on maximizing the quality of education and searching for reserves to improve it.

At the University, the internal assessment of the quality of education is continuous, systemic and systematic, so it is more appropriate to talk about monitoring the quality of education. So, in order to monitor the progress of students, a control system is used, which includes current, intermediate and final control. The methods of current, intermediate and final control by disciplines are established in the funds of evaluation funds.

At the University, the internal assessment of the quality of education is continuous, systemic and systematic, so it is more appropriate to talk about monitoring the quality of education. So, in order to monitor the progress of students, a control system is used, which includes current, intermediate and final control. The methods of current, intermediate and final control by disciplines are established in the funds of evaluation funds.

#### **EEC recommendations:**

1. The management of the university is recommended by the beginning of the 2022-2023 academic year to modernize the electronic information and educational system, providing interactive interaction between all participants in the educational process, including between teaching staff and students, in all areas of the university's activities.

Conclusion of the EEC according to the criterion of the standard "Information Management" for EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" - <u>a</u> satisfactory position

#### 6.8. Standard 8. PUBLIC INFORMATION

#### Standard:

The educational organization must inform the public about its activities (including programs). Information must be clear, reliable, objective, relevant and accessible.

#### Evidence

In order to form open and publicly available information resources containing information about its activities, the University provides access to data on ongoing educational programs by posting them in information and telecommunication networks, including on the official website "Internet" (https://gstou.ru /).

In order to make information about activities more widely available, the official website of the University also has an English version, but not all tabs have a translation of the material presented.

In order to implement the accessibility requirements for the visually impaired, the site provides, in accordance with the Basic Provisions of SEST R 52872-2012, special opportunities for this category of persons.

In accordance with the Decree of the Government of the Russian Federation of July 10, 2013 No. 582 (as amended by Decrees of the Government of the Russian Federation of October 20, 2015 No. 1120, of May 17, 2017 No. 575, of August 7, 2017 No. 944, of November 29, 2018 No. dated 03/21/2019 No. 292) "On approval of the Rules for posting on the official website of an educational organization in the information and telecommunication network "Internet" and updating information about an educational organization" and Order of RusEdControl dated 08/14/2020 No. 831 "On approval of the Requirements for the structure of the official website of an educational organization in the information and telecommunication network "Internet" and the format for presenting information" on the University website (link) information about the educational organization is posted:

basic information (name, date of creation, legal address, contact details, founder, presence of branches);

- structure and governing bodies of the educational organization;

- documents (Charter, License for educational activities (with attachments), Certificate of state accreditation (with attachments), local regulations);

- education (information on educational programs implemented at the University (main professional educational programs);

documents regulating the educational process; the number of students; information on the results of admission, transfer, restoration and expulsion; directions and results of research activities);

- educational standards, according to which training is carried out at the University;

- management, pedagogical (scientific and pedagogical) composition;

- material and technical support and equipment of the educational process (information on the availability of equipped classrooms and facilities for conducting practical classes, the availability of libraries, the availability of sports facilities, the conditions of nutrition and health protection of students, access to information systems and information and telecommunication networks, information for the disabled and persons with disabilities, a list of electronic educational resources);

-scholarships and student support measures (information on the procedure for awarding and paying scholarships, providing material assistance to students, local regulations, orders);

- paid educational services (information on the procedure for the provision of paid educational services, information on the approval of the cost of education);

- anti-corruption (documents, links);

- financial and economic activity (plan of financial and economic activity, indicators);

vacant places for admission (transfer) of students (information on the procedure for admission (transfer) and vacancies for admission (transfer));

- accessible environment (information about special conditions for the education of people with disabilities and people with disabilities, including specially equipped classrooms; about objects for conducting practical classes adapted for use by people with disabilities and people with disabilities; about the library (s) adapted for use by disabled people and persons with disabilities;

on sports facilities adapted for use by disabled people and persons with disabilities; about the means of training and education, adapted for use by the disabled and persons with disabilities; on ensuring unhindered access to the buildings of an educational organization; about special food conditions; about special conditions of health protection;

- international cooperation (information on concluded and planned agreements with foreign and (or) international organizations on education and science (if any); on international accreditation of educational programs (if any));

schedule of students for the current semester.

Informing the public about the results of its activities, plans and innovations, the University, in addition to posting information on its website, carries out open days, joint Job Fairs with employers, participation in educational exhibitions, in the media, etc. Joint congresses and symposiums, exhibitions and conferences with potential employers allow all participants in the educational process to interact systematically. These activities also make it possible to assess the satisfaction of stakeholders with the quality of the information received and in its completeness.

information from employers on the availability of vacancies for employment of specialists is posted on the University website in the "Graduates" section. Information is available on the University website. On the page of vacancies there is an opportunity to send an application online.

Graduates of the University have the opportunity to receive advice on employment issues in the Department of Practice and Employment (DPE).

Together with the graduating departments, relevant work is carried out with employers. Every year, the University takes part in events organized by regional departments, such as the "Vacancy Fair for Jobs and Training Places", organized by the Ministry of Labour, Employment and Social Development of the Chchen Republic. On the site of the Fair, students and graduates directly with the heads of enterprises, incl. and representatives of educational institutions hold meetings and discussions on topics of interest to them.

To search for vacancies for graduates of the University and analyze the requirements of employers for the qualifications of specialists, on-line services are used, such as "trudvsem.ru", "HeadHunter.ru", "Rabota.ru", "Zarplata.ru", etc.

For the purpose of wider coverage of the population with information about the activities of the University, social networking platforms are used: Instagram (https://www.instagram.com/ggntu\_official/); Facebook (<u>https://www.facebook.com/ggntu</u>), (<u>https://vk.com/gstou\_official</u>).

The pages of the University accounts provide information on educational activities, on the scientific achievements of students, on significant events in the Chechen Republic and in the world, on the cultural, creative and sports life of the University. Thus, the University publishes full information about its activities (including educational programs) in a timely manner, in a clear, accurate, objective, relevant and accessible form.

A survey of students conducted during the online visit of the EEC showed that:

- Satisfaction with the usefulness of the website of educational organizations in general and faculties in particular 97.7% of students.

- 95.2% of students are satisfied with information about courses, educational programs, and academic degrees.

#### **Analytical part**

During the online visit, EEC experts studied the contents of the GSOTU official website and the materials presented on it, as well as publications of the university's social media accounts.

Analysis of the data, as well as interviews with students, staff and management of the university made it possible to establish that all the information about the GSOTU is clear, reliable and accessible. Students and staff have the opportunity to contact the management on issues requiring resolution through the official portal of the University.

In addition, the site contains information about the financial activities of the University, personal data of teachers, news information about events at the university and the institute, information about conferences, competitions and grants for students and teaching staff, etc.

The website of the university provides information on interaction with scientific / consulting organizations and educational organizations that implement such educational programs. The results of the activities of the university and in the context of the EP are reflected in full.

The content of the Russian-language portal of the University website, institutes and departments is quite high, but the data in the English-language section are insufficient and do not fully reflect information about the University and the educational programs implemented in it. EEC experts believe that in order to strengthen the activities of the University in the field of international cooperation, recognition at the world level, informing the foreign public about the implementation of the strategic development of the University, the university management needs to carry out purposeful work to periodically fill the content with relevant information in English and keep the English version of the site up to date. condition.

#### Strengths:

1. Quite carefully designed and filled with up-to-date information the official website of GSOTU. acad. M.D. Millionshchikova allows interested persons to get acquainted with all aspects of the University's activities: educational, research, social and educational, international, educational and methodological, etc., with the transition to the location of all regulatory, methodological, legal, statistical and other bases, with attachment all approved documents and applications.

#### **EEC recommendations:**

1. The leadership of EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" is recommended to keep the English version of the page of the institute and the department of the GZK up to date to inform about their activities and maintain an image at the international level.

Conclusions of the EEC on the standard "Informing the public" for EP 21.05.01 Applied geodesy, specialization "Engineering geodesy": a strong position.

## 6.9. Standard 9. CONTINUOUS MONITORING AND PERIODIC PROGRAM EVALUATION

#### Standard:

The educational organization should monitor and periodically evaluate programs in order to ensure that they achieve their purpose and meet the needs of students and society. The results of these processes should lead to continuous program improvement. All stakeholders should be informed of any planned or undertaken actions in relation to these programs.

#### Evidence

Every year, in connection with the development of science, culture, economics, engineering, technology and the social sphere, the actualization of federal state educational standards, changes in the requirements of employers, taking into account the constantly changing labor market conditions and in accordance with the normative local documents of GSOTU:

- Regulations on the procedure for organizing and implementing educational activities in educational programs of higher education - undergraduate programs, specialist programs, master's programs at GSOTU. acad. M.D. Millionshchikov, approved by the rector on December 27, 2018, protocol No. 3;

Regulations on the procedure for the development and approval of educational programs of higher education, approved by the Acting Rector on January 10, 2019, protocol No. 4;

- Regulations on the procedure for the development and approval of educational programs of higher education of the Federal State Educational Standard3++, approved by the First Vice-Rector on April 21, 2021, protocol No. 2;

- Regulations on the procedure for reviewing the educational program of higher education - bachelor's program, specialist's program, master's program, approved by the Rector on 09/01/2020, protocol No. 1.

Issues on updating, adjusting, revising EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" are annually considered:

- Minutes No. 1 of the meeting of the department "Geodesy and Land Cadastre" of the Faculty of Civil Engineering of the Grozny State Oil Technical University named after Academician M.D. Millionshchikov dated 08/30/2018 Consideration of issues on updating, adjusting, revising the educational program 21.05.01 Applied geodesy.

Protocol No. 1 of the meeting of the department "Geodesy and Land Cadastre" of the "Institute of Construction, Architecture and Design" of the Grozny State Oil Technical University named after Academician M.D. Millionshchikov dated 29.08.2019 – Consideration of issues to improve the quality of the content of the EP based on the results of the survey, to update, adjust, revise the educational program 21.05.01 Applied Geodesy, specialization "Engineering Geodesy".

Protocol No. 1 of the meeting of the department "Geodesy and Land Cadastre" of the "Institute of Construction, Architecture and Design" of the Grozny State Oil Technical University named after Academician M.D. Millionshchikov dated 27.08.2020 – Consideration of issues on improving the quality of the content of the EP based on the results of the survey, on updating, adjusting, revising the educational program 21.05.01 Applied geodesy. Decided: to update the EP, work programs in accordance with changes in the curricula.

Extract from the minutes of the meeting of the Academic Council No. 1 dated 09/02/2019 On amendments to the EP VO 05/21/01 Applied geodesy, specialization "Engineering geodesy".

- Minutes of the meeting of the Council of Employers of GSOTU No. 2 dated 03.06.2021 The question of the conformity of the quality of the EP of the specialty 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" with the requirements of the modern labor market.

An analysis of the employers' requirements for the qualifications of graduates of the Applied Geodesy program showed that practical skills in working with specialized application programs - AutoCAD, CredoDAT, PhotoMod, Pix4D, Toposetter pro, Agisoft Fotoscan, UGSC - are becoming more relevant. To monitor the changing requirements of employers for the qualifications of graduates, data from job sites, expert opinions of specialists from among employers, as well as an analysis of students' preferences when studying elective disciplines are actively used.

The educational program of the direction 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" is agreed with the employers of the GLC department: Elsiev Saydali Vakhaevich, General Director of Elravis LLC; Shaipov Abu Lechievich, Deputy Head of the Department of the Federal Service for State Registration, Cadastre and Cartography for the Chechen Republic Rosreestr Department for the Chechen Republic; Temirsultanov Abbas Alievich, Deputy Minister of Highways of the Chechen Republic.

In order to take into account the opinions of students on the management of an educational organization and when an educational organization adopts local regulations affecting the rights and legitimate interests of students at the University, the Trade Union Committee and the United Council of Students (UCS) operate. UCS is a collegiate body of student self-government of the University. The Chairman of the Trade Union Committee is a member of the Academic Council

of the University. In addition, the Trade Union Committee and the UCS supervise the issues of social and material support for students.

Based on the results of the survey of students, the annual formation of elective disciplines is carried out, students are offered topics for final qualified works in order to improve the quality of education.

Achievement of goals within the framework of the EP is monitored during the entire period of study. Evaluation tools are presented in the form of competency-oriented FOS developed by the departments for the current, midterm control of students, intermediate certification, as well as for the state final certification.

The development and updating of the EFF is carried out in accordance with the normative documents of the university:

- Regulations on the Fund of Evaluation Funds (approved by the Acting Rector on November 8, 2018, protocol No. 2);

- Regulations on the formation of a fund of assessment funds for ongoing monitoring of academic performance and intermediate certification (approved by the Rector on January 23, 2020, protocol No. 1);

- Fund of evaluation funds for the state final certification (approved by the First Vice-Rector on 09/01/2020, protocol No. 1).

The conclusions of the EEC on this standard were confirmed in the reports and dialogues held at meetings with the administration and employees of the departments of GGNTU:

1. Interview with the rector of GSOTU dated October 26, 2021;

2. Interview with vice-rectors of GSOTU dated October 26, 2021;

3. Interview with the heads of structural divisions of GSOTU dated October 26, 2021;

4. Interview with directors of institutes, 26.10.2021;

5. Interview with heads of departments dated October 26, 2021;

6. Interview with graduates of the EP from 10/27/2021;

7. Interview with employers

Questioning of students, conducted during the visit of the EEC IAAR, showed that:

- satisfaction with the objectivity of assessing knowledge, skills and other educational achievements of 97.6% of students;

- satisfaction with the tests and exams conducted by 97.7% of students;

- 95.2% of students are satisfied with the quality of study programs in the EP.

#### **Analytical part**

Educational programs as a set of documents are annually reviewed and updated in accordance with the level of development of science, technology and the needs of all stakeholders. The update procedure is determined by federal legislation, internal documents in accordance with the Regulations on the internal independent assessment of the quality of education, the standards of the organization, the Regulations on the intra-university system for monitoring the quality of education, approved by the Rector and the First Projector of GSOTU on June 26, 2021 and September 24, 2020, and is controlled by the state. The achievement of goals within the framework of the EP is monitored throughout the entire period of study.

Feedback on improving the implementation of the EP is provided by constant monitoring and self-examination procedures both by the University as a whole and by EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy".

The use of the electronic educational environment contributes to the efficiency of monitoring and comprehensive evaluation of the EP and is provided by the confirmed high qualification of the employees using it.

Based on the results of studying the self-assessment report and the results of an online visit to the university and interviews with the leadership of the university, the management of structural divisions, teaching staff, students, employers and alumni, <u>the commission notes the following areas</u> <u>for further improvement:</u>

it is necessary to develop a mechanism for more active involvement of students, graduates and employers in the procedures for guaranteeing the quality of the content and implementation of the educational program EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy"; enhancing the participation of students, graduates and employers in the procedures for assessing the quality of educational programs.

EEC recommendations:

1. The management of the university and the management of EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" to carry out explanatory work among students, graduates and employers on the importance of conducting a survey to improve the quality of the internal content of educational programs, reflecting the work done in the protocols of collegial governing bodies.

2. Annually analyze the results of the survey of students, graduates and employers of EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" in order to identify recommendations and proposals for improving the quality of the content and implementation of the EP, with the data reflected in the minutes of the department meetings.

Conclusion of the EEC according to the criterion of the standard "Continuous monitoring and periodic evaluation of programs" for EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" - <u>a satisfactory position.</u>

## 6.10. Standard 10. PERIODIC PROCEDURES FOR EXTERNAL QUALITY ASSURANCE

#### Standard:

The educational organization must undergo external quality assurance procedures in accordance with the European Standards and Recommendations (ESR) on a regular basis.

#### Evidence

Periodic external quality assurance procedures measure the effectiveness of the organization's quality assurance processes. The external provision procedure has various forms and is carried out at different levels.

External assessment of the quality of implementation of EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" is expressed in the state accreditation procedure, which is carried out periodically once every 6 years.

In the period from February 01 to February 05, 2016, the University conducted a state accreditation examination for all major educational programs. In 2019, a state accreditation examination was carried out for higher education programs - master's and postgraduate studies (order No. 1075 of July 24, 2019). Received the Certificate of state accreditation dated March 10, 2016, registration number 1731, series 90A01 No. 0001824 (valid until March 10, 2022).

External quality assurance procedures GSOTU them. M.D. Millionshchikov are carried out through the participation of an educational organization in the federal monitoring of the quality of education (Information and analytical materials on the results of monitoring the effectiveness of the activities of educational organizations of higher education in 2020

https://monitoring.miccedu.ru/iam/2020/\_vpo/inst.php?id=61.

When implementing the EP, the mechanisms of functioning of the system for ensuring the quality of training created at the University are used, including: monitoring and periodic review of the educational program; ensuring the competence of the teaching staff; regular self-examination according to agreed criteria for performance evaluation; system of external evaluation of the quality of the EP implementation; accounting and analysis of the opinions of employers; agreements with foreign partners on student and teacher mobility programs, etc.

#### **Analytical part**

For GSOTU the procedure of international accreditation according to European standards is carried out for the first time. It is necessary that the university provide each university of the Russian Federation and all interested parties with the availability of information on the implementation of all recommendations and requirements that were made during the visit to the university and study of the EP and the accreditation process.

Participation in international rankings is possible subject to purposeful work to harmonize the content of the educational program with the programs of the best foreign and domestic universities in the direction of training the specialist 21.05.01 Applied Geodesy, specialization "Engineering Geodesy".

Based on the results of the visit and the self-assessment report, the <u>commission notes the</u> <u>following areas for improvement</u>: it is necessary to start targeted work to harmonize the content of the educational program with the programs of the best foreign and domestic universities in the direction of the EP.

EEC recommendations:

1. In accordance with the Strategic Development Goals of GSOTU and the Target Values of Development Indicators of GSOTU in the field of educational activities, presented in Appendix No. M.D. Millionshchikov until 2030", the guidelines of the EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" are recommended to design the EP, harmonizing the content of the modules / disciplines with the programs of the best foreign and domestic universities.

2. Openly present information on the results of the external evaluation procedures of EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" to the interested public.

3. Recommend the creation of a working group to develop a regulatory framework and general conceptual approaches for integrating an accredited EP into the international educational environment. Completion date 2022.

The conclusion of the EEC according to the criterion of the standard "Periodic procedures for external quality assurance" for EP 21.05.01 Applied geodesy, specialization "Engineering geodesy" - <u>a satisfactory position.</u>



Standard "Quality Assurance Policy" No strengths/best practices identified. Standard "Development and approval of the program" No strengths/best practices identified. Standard "Student-Centered Learning and Assessment" No strengths/best practices identified. Standard "Admission, performance, recognition and certification of students" No strengths/best practices identified. Standard "Teaching staff" No strengths/best practices identified. Standard "Educational resources and student support systems" No strengths/best practices identified. Information Management Standard No strengths/best practices identified. Public Information Standard

Sufficiently carefully designed and filled with up-to-date information, the official website of GSOTU. acad. M.D. Millionshchikova allows interested persons to get acquainted with all aspects of the University's activities: educational, research, social and educational, international, educational and methodological, etc., with the transition to the location of all regulatory,

methodological, legal, statistical and other bases, with attachment all approved documents and applications.

Standard "Ongoing monitoring and periodic evaluation of programs" No strengths/best practices identified. Standard "Periodic External Quality Assurance Procedures" No strengths/best practices identified.

#### (VIII) OVERVIEW OF RECOMMENDATIONS FOR IMPROVING QUALITY

#### Standard ''Quality Assurance Policy''

1. By the beginning of the 2nd semester of the 2021-2022 academic year, the management of the university should develop, approve, implement and publish the Policy in ensuring the quality of the university.

2. From the 2022-2023 academic year, the leadership of the EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy", in addition to national experts, should involve representatives from international experts, foreign educational organizations, foreign professional communities, etc. in reviewing and conducting external examinations of the EP.

3. The management of the university should analyze and systematize the impact of risks on the activities of the University. Based on the analysis, develop a long-term plan (for 5 years) to prevent and overcome risks in order to improve the activities of the university and improve the quality of educational services and begin its implementation from the 2022-2023 academic year.

4. To the management of EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" in the work plan of the department to include a section with the assessment and management of possible risks in the implementation of the EP, indicating the possible consequences in case of failure to take and (or) timely response measures, as well as with a description risk management mechanisms and measures and start its implementation from the 2022-2023 academic year.

#### Standard "Development and approval of the program"

1. Every year, starting from the 2022-2023 academic year, it is recommended to involve representatives from students and graduates in the development and updating of EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" with the introduction of specific proposals and their reflection in the minutes of the meeting of collegial governing bodies.

2. The management of EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" is recommended to publish on the website information about any planned or taken actions related to the implementation of the EP, including the results of the revision and amendments to the EP.

#### Standard "Student-Centered Learning and Assessment"

1. To form more flexible individual trajectories of students, the educational and methodological management of the university, together with the leadership of the EP, to analyze the content of EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" to consider the possibility of increasing the number of disciplines of choice in the EP, with a reflection of the results the analysis and revision of the EP in the minutes of the meeting of the collegial governing bodies. The implementation period is 2022-2023 academic year.

#### Standard "Admission, performance, recognition and certification of students"

1. The leadership of EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" is recommended to define indicative indicators in planning documents and plan for the next 5 years activities to implement the item: "Participation of students in the program" incoming and outgoing

/ external and internal academic mobility ", including in an online format, and start implementation from the 2022-2023 academic year.

#### Standard ''Teaching staff''

1. The leadership of EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" is recommended to determine indicative indicators in planning documents and plan activities for the next 5 years to fulfill the item: "publication of educational and methodological literature", and begin implementation from the 2022-2023 academic year.

2. The leadership of EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" is recommended to develop an action plan aimed at developing professional cooperation with foreign educational organizations in the specialty of Applied Geodesy.

Determine indicative indicators in planning documents and plan for the next 5 years activities to implement the item: "Teaching staff participation in programs: external and internal / outgoing and incoming academic mobility, participation in international competitions and grants", including in an online format, paying attention special attention to the two main areas of the Erasmus + program (international mobility of students and teachers; innovations and best practices). Start implementation from the 2022-2023 academic year.

3. The leadership of EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" is recommended to develop an action plan aimed at increasing the degree of teaching staff of the GLC department, which implements educational activities in the accredited EP from 40 to 50% and begin implementation from 2022.

#### Standard "Educational resources and student support systems"

1. The management of EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" is recommended to annually monitor and update the educational and methodological materials of the disciplines of specialization in order to respond in a timely manner to changes in the field of professional activity and improve the quality of the educational process with reflection of information in the minutes of the meetings of the department, as well as broadcast the results of their own educational and methodological developments introduced into the educational process on the university's web resource.

#### Information Management Standard

1. The management of the university is recommended by the beginning of the 2022-2023 academic year. to modernize the electronic information and educational system, providing interactive interaction between all participants in the educational process, including between teaching staff and students, in all areas of the university's activities.

#### **Public Information Standard**

1. The leadership of EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" is recommended to keep the English version of the page of the institute and the department of the GLC up to date to inform about their activities and maintain an image at the international level.

#### Standard "Ongoing monitoring and periodic evaluation of programs"

1. The management of the university and the management of EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" to carry out explanatory work among students, graduates and employers on the importance of conducting a survey to improve the quality of the internal content of educational programs, reflecting the work done in the protocols of collegial governing bodies.

2. Annually analyze the results of the survey of students, graduates and employers of EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" in order to identify recommendations and proposals for improving the quality of the content and implementation of the EP, with the data reflected in the minutes of the department meetings.

#### Standard ''Periodic External Quality Assurance Procedures''

1. In accordance with the Strategic Development Goals of GSOTU and the Target Values of Development Indicators of GSOTU in the field of educational activities, presented in Appendix No. M.D. Millionshchikov until 2030", the guidelines of the EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" are recommended to design the EP, harmonizing the content of the modules / disciplines with the programs of the best foreign and domestic universities.

2. Openly present information on the results of the external evaluation procedures of EP 21.05.01 Applied Geodesy, specialization "Engineering Geodesy" to the interested public.

3. Recommend the creation of a working group to develop a regulatory framework and general conceptual approaches for integrating an accredited EP into the international educational environment. Completion date is 2022.

#### (IX) REVIEW OF RECOMMENDATIONS FOR THE DEVELOPMENT OF EDUCATIONAL ORGANIZATION

During the work of the EEC, interviews were conducted with all participants in the educational process and structural divisions.

Based on the results of online communication with the teaching staff, students and the administration of the University, convincing data was obtained indicating the systematic nature of work to improve the quality of education, the conditions for students to study, the work of the teaching staff and other structures of the university.

Members of the External Expert Commission of the Independent Agency for Accreditation and Rating for the further dynamic development of the university, strengthening its position in the global educational space and ensuring the high quality of educational services <u>recommend</u>:

1. To analyze and systematize the impact of risks on the activities of the University, each institute and department. Based on the analysis carried out, develop a long-term plan to prevent and overcome risks in order to improve the activities of the university and improve the quality of educational services.

3. Expand the areas of cooperation, as well as the geography of employers (including regional companies), within the framework of concluded agreements and memorandums of cooperation, not only in relation to their acting as practice bases, but also in terms of creating joint research laboratories, basic departments, educational -production centers, etc.

4. Develop a program for the implementation and activation of academic mobility of students and teaching staff in all educational programs.

5. Consider the possibility of carrying out a more in-depth study of the English language both within the framework of the EP and organizing additional training in foreign languages.

6. Create a working group to study the experience of partner universities and develop a medium-term program to translate the experience of partner universities into the educational trajectories of accredited programs at all levels.

7. Activate the activities of the Alumni Association with the involvement of the Association in university projects.

8. Develop in the medium term a system for attracting employers to manage the EP along with the academic environment and students.

9. Develop a mechanism to stimulate the use of teaching staff of online learning technologies based on electronic courses of disciplines, MOOCs and / or other ICTs, to provide refresher courses for university teaching staff in the development and application of MOOC courses, Coursera, etc. in the educational process.

#### Annex 1. Evaluation table "PROGRAM PROFILE PARAMETERS"

Conclusion of the external expert commission for assessing the quality of the educational program 21.05.01 Applied geodesy, specialization "Engineering geodesy" named after academician M.D. Millionshchikov"

N⁰		Posit educ orga	tion of ationa nizati	f the al on	
	International standards IAAR ESG Part 1.	strong	Satisfactory	Suggests improvement	Unsatisfactory
Stand	ard 1. QUALITY ASSURANCE POLICY				
1_	The educational organization should have a published quality assurance policy as part of its strategic management. Internal stakeholders should develop and implement this policy through appropriate structures and processes with the involvement of external stakeholders.			+	
Stand PRO	lard 2. DEVELOPMENT AND APPROVAL OF THE GRAM		5		
2	An educational organization must have mechanisms for the development and approval of its programs. Programs should be designed in accordance with established objectives, including intended learning outcomes. The qualifications resulting from the completion of the program must be clearly defined as well as explained and must correspond to a certain level of the national qualifications framework in higher education and, therefore, the framework of qualifications in the European Higher Education Area.				
Stand ASSE	lard 3. STUDENT-CENTERED LEARNING AND		+		
3	The educational organization must ensure that the program is implemented in such a way as to encourage students to take an active role in the joint construction of the educational process, and that student assessment reflects this approach.				
Stand CER	lard 4. ADMISSION, ACCESS, RECOGNITION AND FIFICATION OF STUDENTS				

Standard 5. TEACHING STAFF       +         5       The educational organization must have objective and transparent processes for the recruitment and professional development and development of all staff, which allow them to ensure the competence of their teachers.       +         Standard 6. EDUCATIONAL RESOURCES AND STUDENT SUPPORT SYSTEM       +         6       The educational organization must ensure that there are sufficient, accessible and appropriate learning resources and student support services.       +         7       An educational organization must ensure that it collects, analyzes and its educational programs.       +         8       The educational organization must inform the public about its activities (including programs). The information provided must be clear, reliable, objective, relevant and accessible.       +
5       The educational organization must have objective and transparent processes for the recruitment and professional development and development of all staff, which allow them to ensure the competence of their teachers.       +         Standard 6. EDUCATIONAL RESOURCES AND STUDENT SUPPORT SYSTEM       -         6       The educational organization must ensure that there are sufficient, accessible and appropriate learning resources and student support services.       +         7       An educational organization must ensure that it collects, analyzes and uses relevant information to effectively manage its activities and its educational programs.       +         8       The educational organization must inform the public about its elucational organization must inform the public about
Standard 6. EDUCATIONAL RESOURCES AND STUDENT SUPPORT SYSTEM       +         6       The educational organization must ensure that there are sufficient, accessible and appropriate learning resources and student support services.       +         Standard 7. INFORMATION MANAGEMENT       -         7       An educational organization must ensure that it collects, analyzes and uses relevant information to effectively manage its activities and its educational programs.       +         8       The educational organization must inform the public about its clear, reliable, objective, relevant and accessible.       +
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Standard 7. INFORMATION MANAGEMENT
7       An educational organization must ensure that it collects, analyzes and uses relevant information to effectively manage its activities and its educational programs.       +         Standard 8. PUBLIC INFORMATION       -       -         8       The educational organization must inform the public about its activities (including programs). The information provided must be clear, reliable, objective, relevant and accessible.       +
Standard 8. PUBLIC INFORMATION         8       The educational organization must inform the public about its activities (including programs). The information provided must be clear, reliable, objective, relevant and accessible.         6       Control of the public about its information provided must be clear, reliable, objective, relevant and accessible.
8 The educational organization must inform the public about its + activities (including programs). The information provided must be clear, reliable, objective, relevant and accessible.
Standard 9. CONTINUOUS MONITORING AND PERIODIC PROGRAM EVALUATION
9 The educational organization should monitor and periodically + evaluate programs in order to ensure that they achieve their purpose and meet the needs of students and society. The results of these processes should lead to continuous program improvement. All stakeholders should be informed of any planned or undertaken actions in relation to the programs.
Standard 10. PERIODIC PROCEDURES FOR EXTERNAL         QUALITY ASSURANCE
10The educational organization must undergo external quality assurance procedures in accordance with the European Standards and Recommendations (ESG) on a regular basis.+
Total         1         8         1         0