



«АККРЕДИТТЕУ ЖӘНЕ РЕЙТИНГТИҢ
ТӘУЕЛСІЗ АГЕНТТІГІ» КЕМ

НУ «НЕЗАВИСИМОЕ АГЕНТСТВО
АККРЕДИТАЦИИ И РЕЙТИНГА»

INDEPENDENT AGENCY FOR
ACCREDITATION AND RATING

REPORT

on the results of the work of the external expert evaluation committee
for compliance with the requirements of standards of specialized accreditation of
educational programs
1304000 «Computing and software (by type)»

Private Institution «College KEEU»
from «31» till «02» November 2018.

*Independent agency of accreditation and rating
External expert committee*

*Addressed to
Council for accreditation of
Independent agency of accreditation and rating*



Независимое агентство
аккредитации и рейтинга

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Kostanay 31 October 2018

LIST OF SYMBOLS AND ABBREVIATIONS

AC – alphabetical catalog
CL – company limited
EW – educational work
HEI – higher education institute
SQC – State Qualification Committee
SCES RK – State Compulsory Educational Standard of the Republic of Kazakhstan
DDOE – discipline determined by the organization of education
RD – railway disciplines
ICT – information and communication technology
ETS – engineering and teaching staff
KABIS – Kazakh automated library information system
KVN – club of cheerful and resourceful
KEEU – Kostanay engineering and economics university named after M. Dulatov
ILL – inter-library loan
MES RK - Ministry of Education and Science of the Republic of Kazakhstan;
IS – international standard
RW – research work
SRW – student research work
SMW – scientific and methodical work
RLCY – regional library for children and youth
EP – educational program
RESL – Regional Educational Scientific Library
ALPT – assessment of the level of professional training;
PC – professional competencies
TS – teaching staff
SCC – subject-cycle commission
RK – Republic of Kazakhstan
WC – working curriculum
RA – reference aids
MM – mass media
CR – construction regulations
VET – technical and vocational education
LLP – limited liability partnership
SC – standard curriculum
AMC - academic and methodological complex
JTW – job training work
AW – academic work
PI – private institution
SYP – school of a young professional
SBP – school of best practices
EL – e-library

(II) INTRODUCTION

In accordance with order No. 89-19-OD dated from October 29, 2018, the Independent Agency for Accreditation and Rating was organized by the external expert commission (EEC) in the Private Institution "College KEEU" Kostanay, with activity type of technical and vocational education. From October 31 till November 2, 2018, was conducted the assessment of the compliance of the educational programs of the specialty 1304000 "Computing equipment and software (by types)", qualification 1304043 "Technician-programmer" to the standards of specialized accreditation of the IAAR.

The EEC report contains an assessment of the compliance of the presented educational programs of the educational organization with the criteria of the IAAR, recommendations of the EEC for further improvement of educational programs and parameters of the profile of educational programs in the Private Educational Institution "College KEEU".

List of EEC:

1. **Presiding commissioner**– Ualkhanov Baizhan Nuebaevich, coach of «Kasipkor» holding company. (Kokshetau);
2. **Foreign expert** – Sosnin Vyacheslav Viktorovich, director «Souz» Center (Omsk, Russian Federation);
3. **Expert** – Malikova Marzhan Sabyrovna, vice director in EMA SMMC «Almaty State Polytechnic College» (Almaty);
4. **Expert** – Koval Marina Leonidovna, vice director in job-training work SMMC «College of Economics, Technology and Food Production Standardization» (Astana);
5. **Expert** – Senkin Pavel Vladimirovich, vicedirector in job-training work MPI «Engineering College» (Petrovsk);
6. **Expert** – Iskakov Sungat Serikovich, manager ME of energy disciplines and communications SMMC «High College, Shuchinsk» (Akmolinsk oblast);
7. **Expert** – Abdrachmanova Kadisha Tulegenovna, chairperson of subject-cyclic commission, teacher of special subjects Municipal State – Owned Public Enterprise «Aksu College named after Zhayau Mysa» (Pavlodar oblast);
8. **Expert** – Iskakov Duman Sailaukhanovich, manager of subject-cyclic commission of railway disciplines of Municipal State –Owned Public Enterprise «Karaganda higher polytechnic college»(Karaganda);
9. **Observer from Agency** – Bekenova Dinara Kairbekovna, project accreditation manager of (Astana);
10. **Employer** – Olkinyan Lydmila Yuryevna, director of personnel training and development center company limited «Agromash Holding» и limited liability partnership «Saryarka Avtoprom» (Kostanay);
11. **Student** – Luchin Anatoly Arkadyevich, student of the second course, speciality 1402000 «Technical operation of road building machines (by types)» Municipal State-Owned Public Enterprise «Kostanay college of automobile transport»(Kostanay).

(III) PRESENTATION OF EDUCATIONAL ORGANISATION

Private Institution "College KEEU" is an educational institution of technical and vocational education, having the status of a legal entity that implements professional educational programs.

The Private Institution "College KEEU" operates on the basis of the Charter of a private institution "College KEEU" dated from 12.08.2016; certificate of state registration of a legal entity dated from August 17, 2016 (160840015399 business identification number, legal entity name: Private institution "College of KEEU", location of the legal entity: Republic of Kazakhstan, 110000, Kostanay region, Kostanay city, Chernyshevsky street, 59).

In accordance with the goals and objectives defined in the statute and the status of the college, the activity of the private institution "College KEEU" is carried out on the basis of the state license No. KZ06LAA00007659 dated from 10.17.2016. This license was obtained in connection with the reorganization of the private institution Kostanay engineering and economics university named after M. Dulatov "; Protocol of the general meeting of founders dated from 08.08.2016 by the allocation of a private institution "College KEEU".

The training of specialists in the specialty "Computer equipment and software (by types)" is conducted in full-time and part-time forms of education, the languages of instruction are state and Russian. The contingent of students for the 2018-2019 academic year is 88 students, of which 50 students are enrolled by the state order, 38 students on a commercial basis.

The educational program includes: a working curriculum, work programs of educational disciplines, a calendar-thematic plan, programs of educational and work experience, a schedule of the educational process, ensuring the implementation of relevant educational technologies. The training program is aimed at performing tasks in accordance with the mission and has sufficient resources: human resources, material and technical base, contracts with practice bases, a list of elective disciplines, etc.

For the organization of practical training in the specialty "Computing equipment and software (by type)" contracts have been concluded with 4 social partners. The main ones are EVRAZ Caspian Stal company limited, SaryarkaAvtoProm LLP, Algorithm-Service LLP, SK-Metiza LLP.

The building of PI "College KEEU" has an educational building with a design capacity of 5342.7 square meters, as well as a dormitory for 100 people, a dining room for 120 people, a student cafe Garage of 65 sq.m. College classroom fund consists of 31 classrooms, including:

- general education offices - 11 units.
- cabinets of general professional and special disciplines -20 units.
- laboratories - 22 units.
- manufactories - 3 units.

For the specialty 1304000 "Computer equipment and software (by types)" were identified 2 laboratories of 205B "Hardware software for PEM, information technology and programming technology" and 206B "Applied informatics, software and programming" that are equipped with computers and multimedia equipment.

(IV) DESCRIPTION OF PREVIOUS ACCREDITATION PROCEDURE

Private Institution "College KEEU" for the first time undergoes the procedure of specialized accreditation of TVE organizations.

(V) Description of the external expert committee

The work of the EEC was carried out on the basis of the program of the visit of the expert committee on specialized accreditation of educational programs to the Private Institution "College KEEU" from October 31 to November 2, 2018.

In order to coordinate the work of the EEC in college, an orientation 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.

The meetings of the EEC with the target groups were held in accordance with the updated program of the visit, in compliance with the established time period. On the part of the team of Private Institution "College KEEU" was ensured the presence of all persons specified in the program of the visit.

To obtain objective information about the quality of educational programs and the entire infrastructure of the college, to clarify the content of the self-assessment reports, meetings were held: with the director, deputy director of academic work, deputy director of educational work, deputy director of job-training work, director of Scientific and Methodical Work, Head of teaching department, Head of Department, Head of Human Resources, Chief Accountant, Head of Library, Nurse, Chairmen of the subject-cycle commission, Psychologist, Executive Secretary of the Admissions Committee, teachers, industrial education masters, students, alumni, employers, social partners and parents of students. In total, 179 people took part in the meetings.

Table 1 - Information about those who participated in meetings with the EEC

Category of participants	Amount
Director	1
Vice Director	4
Head of Department	2
Accountant general	1
HR Manager	1
Head of Infrastructure Development and Operation	1
Accountant - economist	1
Chairpersons of subject-cycle commission	7
Instructors and Masters of Industrial Training	32
Employees	7
Students	67
Alumnus	16
Employers, social partners	12
Parents of students	27
Total	179

In the course of the EEC, a visual inspection of the college infrastructure was conducted: classrooms, computer classes, a library, a reading room, an assembly hall, a gymnasium, a hostel, a medical center, a canteen, etc. Were also studied the regulatory documentation of the college, curriculum, educational program, educational and methodological information support of educational activities, materials on personnel and material and technical support of the educational process, documentation on the organization of educational work and financial activities of the college.

All conditions were created for the work of the EEC, access to all necessary information resources was organized.

As part of the planned program, recommendations for improving the activities of the college, developed by the EEC based on the results of the examination, were presented at a meeting with the college management.

The activities planned during the visit allowed the members of the EEC of the IAAR to carry out an independent assessment of the compliance of the data set out in the college self-assessment reports with the criteria of specialized accreditation standards.

Along with this, the experts studied the website of the college www.college.KEEU.kz, which is the source of information about the college for the public, both internal and external.

A detailed analysis of the compliance of the activities of the college with the Standards of specialized accreditation of the Independent Accreditation Agency and the rating allowed the EEC within the framework of the College visit program to draw the following conclusions in terms of standards.

(VI) CONFORMITY TO SPECIALIZED ACCREDITATION STANDARDS

6.1. Standard "Educational Program Management"

The evidence part

Strategic educational activities of the college are reflected in the planning, reporting and regulatory documents of the college.

Education in the specialty 1304000 "Computer equipment and software (by type)", 1304043 "Technician-programmer" is carried out in accordance with the legal documents of the Republic of Kazakhstan and the College's Strategic Development Plan for 2017-2027, which defines the mission goals, objectives and perspective vision, reflecting its place and role in the socio-economic, educational, scientific and cultural development of the country.

The mission of the college is to prepare competitive and demanded specialists in the labor market with entrepreneurial thinking to meet the needs of the innovative development of the region and the country.

The vision is to become a college recognized in Kazakhstan and the international space, providing high-quality educational services in the field of professional training of competitive specialists that meet the requirements of stakeholders.

The strategic goal is affordable quality education with the acquisition of professional skills at the level of national and international standards.

College activities are carried out in accordance with external and internal documents. External documents are submitted by Decrees of the President of the Republic of Kazakhstan, Resolutions of the Government of the Republic of Kazakhstan, Orders of the Ministry of Education and Science of the Republic of Kazakhstan, and the Kostanay Department of Education.

Internal documents are divided into internal regulatory, organizational and regulatory, regulations on units, job descriptions.

According to the staff structure, the direct management of the college is carried out by the director, who organizes the strategic management of the college in accordance with its competence, determined by the legislation of the Republic of Kazakhstan and the College Charter.

The main activities of the college are coordinated by deputy directors:

- Deputy Director for Academic Affairs;
- Deputy Director for educational and industrial work;
- Deputy Director for Scientific and Methodological Work;
- Deputy Director for educational work

Analytical part

Experts from the EEC note that the college has an optimal system of management and identification of responsible persons. The implementation of educational programs, compliance with their mission, vision and strategy is ensured, first of all, through the planning system by using the following mechanisms:

- management of long-term planning through common priorities and strategic goals for program development;
- short-term planning of internal control plans and work of structural units, reflecting the deadlines.

Analyzing the work on the standard "Management of the educational program" it can be noted that the educational program is implemented in accordance with the regulatory legal acts of the Republic of Kazakhstan.

In accordance with the program of the visit, a survey was conducted with teachers and students. The results of the survey reflected, in addition to determining the degree of satisfaction, the decision to adjust plans according to the directions of activity.

An anonymous survey of teachers, conducted during the visit of the WEC of the IAAR, showed that the majority of teachers noted the item "Reflection of the mission and strategy of the college in the curricula" - "very good" - 7 people, which was 17.5% and "good" - 32 human, it is 80%.

A student survey conducted during the visit of the EEC IAAR showed that:

- the level of availability and responsiveness of the college management, fully satisfied - 88.4%;
- the overall quality of the curriculum is completely satisfied - 85.5%;
- learning methods in general are fully satisfied – 88,4%;
- the quality of teaching is completely satisfied – 85,5%.

Strengths / Best Practices

The EEC notes that in the educational institution according to this standard, special attention is paid to documenting all the main business processes governing the implementation of EP.

EEC recommendations

In order to further develop and improve the activities of the college in the implementation of accredited educational programs, the EEC NAAR recommends:

- to ensure the improvement of the College Development Strategy with the specification of specific activities and indication of indicators, as well as expected results and required resources;
- strengthen the work on improving the quality of the educational process, taking into account the quality management system and the strategic college development plan;
- identify the mechanisms for the formation and regular review of the development plan of the EP and monitoring its implementation;
- provide analysis of the effectiveness of changes in the EP, assessment of performance in the activities of departments and their interaction;
- initiate the work of the system of collecting and analyzing statistics in the management processes of the EP

Conclusions EEC on the criteria: (strong / satisfactory / suggest improvements / unsatisfactory)

ECC notes that a specialized college profile for this standard contains 1-strong, 16-satisfactory and 5-suggest improvements.

6.2. Standard "Specificity of the educational program"

The evidence part

The content of educational programs of technical and vocational education provides for the study of general educational, humanitarian, socio-economic, general professional, special disciplines, industrial training and professional practice in the acquisition and consolidation of professional skills.

The main result of the successful development of educational programs by students is the preparation of an educated, comprehensively developed specialist who is able to compete in the labor market;

A graduate model is a description of what a specialist should be suitable for, what functions he should be prepared for and what qualities she should possess.

The basis of the professional activity are the professional competencies of the graduate, which determine his adaptation to the changing situation in society and the labor market, the updating of existing or the formation of new competencies. In the conditions of market relations, graduates should have such general professional competences as independent observation, control, self-discipline, assessment, self-organization, self-government, provision.

Analytical part

During the visit, experts of the IAAR visited the bases of practices, in particular, in the specialty 1314000 "Computing equipment and software (by types)", LLP "SaryarkaAvtoProm", director of the Center for Personnel Training and Development of company limited "AgromashHolding" and LLP "SaryarkaAvtoProm" Olkinyan Lyudmila Yuryevna information on the organization's activities was provided, but unfortunately, information about practical training at this enterprise was not confirmed by students of this specialty.

Considering that the sustainable development of technical and vocational education, like any other socio-economic system, is associated with the constant modernization of its activities based on social partnership, it requires the search for new, more effective partners, the introduction of innovations into the educational process. An important area of interaction with social partners in the

field of educational content is their involvement in the development of training and program documentation for training. Such interaction allows taking into account modern and future requirements for the training of specialists, imposed by employers. In the course of interviews with the employers, it was revealed that the college needs to strengthen the work on cooperation with social partners and update educational programs to meet the interests of production.

The experts also note that the model of the graduate of the specialty 1304000 “Computing equipment and software (by types)” needs to be improved, as it should reflect the knowledge, skills, basic and professional competencies, personal qualities of a programmer who can work in modern market economy. The formation of competencies is implemented by means of educational content. During the interview, it was not confirmed that the involvement of interested persons in the compilation of a graduate model.

Thus, the EEC, analyzing the work on the standard “Specificity of the educational program”, revealed the non-renewability of educational programs, their incompatibility with the realities of the modern labor market. EP management to ensure the exchange of experience with partner organizations, it is necessary to hold meetings and round tables with employers, at which the requirements for graduates are adjusted, questionnaires are filled in and analyzed, curricula are adjusted to meet the requirements of modern production. It is also necessary to provide additional education, which involves training and obtaining professional certificates.

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

- the level of availability and responsiveness of management is estimated as high - 88.4%;
- availability for counseling on personal problems is assessed - 71%;
- support of educational materials in the learning process - 85.5%;
- the level of satisfaction with the college's educational resources - 87%.

Strengths / Best Practices

The EEC notes that in the educational institution of this standard, special attention is paid to the transparency of processes and the criterion for evaluating learning outcomes.

EEC recommendations

In order to further develop and improve the activities of the college in the implementation of accredited educational programs, the EEC IAAR recommends:

- finalize the graduate model in accordance with the professional activities for the development, modification, adaptation, customization and maintenance of software using innovative IT solutions;
- update the specialty “Computer equipment and software” in order to determine whether the training of specialists corresponds to the realities of the modern labor market, the requirements of existing organizations and enterprises of the region;
- determine the content, scope, logic of the relationship of academic disciplines and their influence on the formation of the basic and professional competencies of the graduate with the requirements of employers;
- develop a system for monitoring the quality of education to analyze the achievements of subject results
- to develop a system for monitoring the satisfaction of students and managers of enterprises based on the results of industrial training and professional practice in the specialty "Computing equipment and software";
- to systematize the work on the application of innovative methods and forms of education in the educational process;
- to form the composition of the attestation examination commission from among qualified specialists of enterprises and representatives of collegial bodies in accordance with the order No. 125 with changes from January 30, 2017 in the ratio of 65% from representatives of employers and 35% from representatives of technical and vocational education;
- update the topics of course and diploma projects in accordance with the modern level of development of information technology;
- to concretize the content of the development plan of the study program of the specialty "Computer engineering and software".

Conclusions EEC on the criteria: (strong / satisfactory / suggest improvements / unsatisfactory)

The EEC notes that the specialized college profile for this standard contains a 1-strong criterion, 13-satisfactory and 10-suggest improvements.

6.3. Standard "Teaching staff and the effectiveness of teaching"

The evidence part

The teaching staff is the main resource for the mission of the college. In this regard, the college pays great attention to the processes of recruitment and training. Personnel policy is carried out in accordance with the main priorities of the college strategy and the requirements of the college development plan.

For the implementation of the educational process, a staff of teachers has been formed, training specialists in accordance with the specifics of professional educational programs and having the necessary professional and pedagogical qualifications that meet the qualification requirements of the "Qualification characteristics of teacher positions and equivalent persons" KEEU " 02.09.2013, in accordance with the Law of the Republic of Kazakhstan "On Education", by the order of the Minister of Education and Science of the Republic of Kazakhstan dated July 13, 2009 No. 338 "On Approval of Typical Qualification Characteristics of Teaching Workers and Equal Persons", which defines the main qualification requirements for individual work plan.

Planning of the academic work of an individual work plan is carried out by the deputy director for academic work within the pedagogical load. The total amount of workload of a full-time teacher, taking into account the fulfillment of academic, educational, research, organizational, educational, advanced training and other types of work within an 8-hour working day, is 720 hours. The annual educational workload of an individual work plan is established on the basis of the approved standard for the academic year, the state of the individual work plan, and taking into account the need to perform all types of educational activities arising from the curricula.

The staff of teachers of the specialty 1304000 "Computing equipment and software (by types)" is 5 people who have special disciplines, of which M. Yu. Agibalova worked as an engineer in the "Mars" SPA, Ulyanovsk, Pyatin G.K. - Company Limited "Insurance Company Salem", administrative specialist, Doribaeva S.A. - LLP "SemserSecurity", HR specialist.

Analytical part

In the course of interviews with teachers, experts did not receive reliable information about innovations in the framework of EP, which implies that the use of active and innovative teaching methods is insignificant.

During the visit, the EEC visited an educational lesson in the specialty "Computer Engineering and Software". In the group 4POVT9, the lesson was conducted by the teacher of the highest category of special disciplines Agibalova Marina Yurievna in the discipline "Design and technology of software development", where 9 students from 10 attended the lesson. The audit revealed a lack of innovation in the learning process, which indicates the need to update curricula in accordance with modern requirements.

Also attended the laboratory lesson of the teacher of special disciplines of the highest category Daribayeva Saule Akhmetkyzy in the discipline "Object-Oriented Programming" in the group 4POVT9, where 7 students from 10 attended the lesson. Laboratory work on C ++ Builder is irrelevant, as in industrial development you will hardly meet it, it is recommended to update the topics of laboratory works using modern software tools that are in demand in the market.

An analysis of the classes attended by teachers of special disciplines indicates a lack of relevance and modernity of the content of the material being taught, which, in general, does not allow for the preparation of a competent specialist. It is also necessary to pay attention to the sequence of studying disciplines. For example, the study of the discipline "Design and technology of software development" gives students a basic knowledge of the design and development of information systems, respectively, it is logical to study it in the early courses than in the latter, when you need to spend more time studying more complex software products and solutions.

One of the factors for improving the quality of the educational process is the use of information technologies in training, but for this it is necessary to improve the level of ICT skills of

college teachers, by organizing internal advanced training courses in the field of information technologies, this allows teachers to master professional software and successfully use it in conducting classroom and extracurricular activities. Competent use of information and communication technologies by the teaching staff enhances the pedagogical impact on the formation of a student's creative potential. Also, an increase in the effectiveness of new information using and communication technologies in the educational process would contribute to improving the quality of e-textbooks, guidelines, etc.

In general, assessing the staffing, which is one of the conditions that determines the quality of training, it is necessary to review the personnel structure in the specialty "Computing equipment and software", taking into account basic knowledge. Along with this, it is necessary to regularly organize advanced training of the teaching staff, to pass certification to the qualification category in a timely manner, and also to build a sustainable target personnel system, which should highlight the training of new personnel from among its own graduates.

A faculty survey conducted during the visit of the EEC IAAR showed that:

- the college provides an opportunity for continuous capacity development Individual Development Plan - good - 77.5% and very good - 12.5%;
- teachers are satisfied with the content of the educational program - good 90% and very good - 10%;
- the level of feedback of teachers with the leadership is satisfactory - 75% and very good - 10%;

Strengths / Best Practices

EEC notes that in the educational institution according to this standard, special attention is paid to the participation of the teaching staff in society.

EEC recommendations

In order to further develop and improve the activities of the college in the implementation of accredited educational programs, the EEC IAAR recommends:

- to increase the share of practitioners involved in the educational process for teaching special subjects and holding master classes, seminars, etc. ;
- develop management mechanisms to stimulate and motivate the professional and personal development of college teachers;
- to strengthen the control over the selection of personnel, taking into account the basic knowledge of the specialty "Computing equipment and software";
- intensify the work of the rating system of teachers for the effective management of both the system of increasing the professional growth of teachers and the effective management of the quality of the educational services provided;
- monitor the satisfaction of the teaching staff to improve the efficiency and quality of the educational process of the college;
- to provide an opportunity for improving of the skills and the professional level of teachers;
- consider the possibility of international cooperation in the field of improving pedagogical and methodological skills and exchange of experience with foreign colleagues on the use of innovative educational technologies;
- to strengthen the work to increase the number of teachers of special disciplines for internships at industrial enterprises in the specialty profile;
- to improve the work of the school of the young teacher and mentoring;
- to increase the number of copyright developments in special disciplines;
- consider the possibility of organizing English language courses for college teachers.

Conclusions EEC on the criteria: (strong / satisfactory / suggest improvements / unsatisfactory)

EEC notes that a specialized college profile for this standard is 1-strong, 3-satisfactory, 7-suggest improvements.

The evidence part

Depending on the conditions of training, the contingent of the educational institution is divided into students by state educational order and students on a contractual basis.

The formation of a contingent is one of the main activities of the Private Enterprise “College KEEU” and is included in the work plan of the structural units. The policy of forming a contingent of students is to attract those who are most prepared for college, who deliberately chose the specialty of private enterprise “College KEEU” as a result of vocational guidance. Admission and admission to college is carried out in accordance with the Constitution of the Republic of Kazakhstan, the Law of the Republic of Kazakhstan "On Education", other regulatory legal acts of the Republic of Kazakhstan, The College Charter and the “Model Rules for Admission to Education in Educational Organizations Implementing Educational Programs of Technical and Vocational Education”, approved by the Government of the Republic of Kazakhstan No. 130 dated January 19, 2012, as well as the “Rules for Admission to Education in the Private Enterprise“ College KEEU ”, approved annually college director.

The contingent of students for the current year:

Spicality	State educational order	On a contractual basis
Computing and software	50	38
Total	88	

Thus, the main indicator is the formation of a contingent of students for the state educational order.

Considerable work on the vocational guidance of schoolchildren is carried out by the college students themselves, who distribute campaign materials during the vacation time at the place of residence.

The composition of the selection committee is approved by order of the director of the college. The Admissions Committee organizes its work, guided by the established requirements and recruitment plan. The result of the selection committee is the enrollment procedure. Enrollment in college students is carried out in accordance with the Model Rules, the results of entrance examinations.

In order to provide the bases for educational, pedagogical and industrial practices, contracts are concluded with leading enterprises in the industry.

For students who have passed the final attestation and confirmed the mastering of the relevant professional curriculum, the decision of the GAK will award the corresponding qualification in the specialty and receive a state diploma.

Employment of graduates is an important criterion when evaluating college work. The analysis of employment in the specialty 1304000 "Computing equipment and software" for the reporting period is 87%.

Analytical part

In the course of interviews with members of the IAAR, students of accredited specialties expressed the following wishes: to strengthen the practical orientation of teaching, increase production excursions to familiarize themselves with the specialty, equip laboratories with modern equipment, increase scholarship, etc.

Experts note that the college has all the conditions for the development of creative and athletic abilities of students, but at the same time not enough time is devoted to professional circles that contribute to the future competence of the specialist.

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

- support of educational materials in the learning process - fully satisfied - 85.5%, partially - 13%;
- availability of counseling on personal problems - fully satisfied - 71%, partially 23%;

- level of availability of library resources - fully satisfied - 92.8%, partially - 7.2%;
- quality of the services provided in libraries and reading rooms is fully satisfied - 85.5%, partially - 13%.

Strengths / Best Practices

In the course of the analysis of the standard “Students”, the experts did not reveal the strengths of the specialty “Computer Engineering and Software.

EEC recommendations

In order to further development and improvement the activities of the college in the implementation of accredited educational programs, the EEC NAAR recommends:

- develop a mechanism for the implementation of standards for professional training of WorldSkills international championships in the declared competencies;
- organize circle works and electives in accordance with the specialization;
- develop a mechanism for monitoring the employment and professional activities of graduates;
- initiate a mechanism for encouraging students to self-education;
- to increase production excursions to the enterprises in the specialty “Computer equipment and software”;
- strengthen communication with college graduates - attract them to participate in various events and consider the possibility of creating an Alumni Association;
- improve career guidance work using innovative technologies.

Conclusions EEC on the criteria: (strong / satisfactory / suggest improvements / unsatisfactory)

The EEC notes that the specialized profile of the college according to this standard contains 6-satisfactory and 4-suggest improvements.

6.5. Standard "Resources used in the implementation of educational programs"

The evidence part

When carrying out educational activities, the college is guided by the regulatory documents governing the mandatory regulatory requirements for the material, technical, and educational and laboratory facilities of educational organizations.

An important factor in ensuring quality education is the continuous improvement of the material and technical base and information resources.

The building of private institution “College KEEU” has an educational building with a design capacity of 5342.7 square meters, as well as a dormitory for 100 people, a dining room for 120 people, a student cafe “Garage” of 65 sq.m.

There are 31 classrooms for college classes, including:

- general education offices - 11 units.
- cabinets of general professional and special disciplines -20 units.
- laboratories - 22 units.
- workshops - 3 units.

For the specialty 1304000 "Computers and software (by type)":

205B

“Hardware, information technology and programming technology” is a computer class designed to solve problems from various fields of science, technology, economics and production using mathematical methods and computer technology at all stages from setting to getting a result on a computer. The purpose of personal computers is to use modern information technologies for the development of programs, as well as the compilation of programs for working with databases. In addition, classes in the laboratory help to strengthen knowledge in the observance of safety techniques and fire safety rules when working with electronic computers

206B "Applied Informatics, Software and Programming"

represents a computer class, computers are equipped with the following programs:

AdobePhotoshop – graphics editor; AdobeCorelDraw - graphics editor; AdobeAcrobatDC – for

working with PDF files; AdobeMuse – WEB application development; AdobeIllustrator – vector graphics editor; MacromediaFlash – to create flash animation; AutoPlay – making video films, disk cover; KOMIAC-3DV16 – for working with drawings; Delphi 7 – development environment; Pascal – development environment; Notepad++ - text editor; Brackets – text editor, для WEB developer; CИ++ - development environment; COMCNC 1.31 Milling and Lathe (Immitator); MicrosoftOffice (Word 2016, Excel 2016, PowerPoint 2016, Publisher 2016 и Access 2016) – office applications.

In addition, there are computer classes 211A-1, 211A-2 "Computer science and the basics of computer equipment and personal computers", 211A-3, 211A-4 "Creating and introducing information support for automated systems."

The college library operates in accordance with the "Model Regulations on the Library of Vocational Education Organizations", approved by the MES of the Republic of Kazakhstan dated August 17, 2000 No. 827, by the order of the MES RK "On the approval of library documents for educational system libraries" dated July 18, 2003 No. 508 and work plan for the school year.

The library occupies the 4th floor of the new building, its total area is 431.2 m². The library has two structural subdivisions: a service department (a subscription and a reading room for 120 seats) and an Internet room for 13 seats with 10 computers. All information resources are made available to users daily from 8.30 to 18.00.

The total fund of the college library is 37,800 copies of educational, scientific, technical and reference books in all prepared specialties, including 12,600 copies in the state language. The book fund of textbooks is 44719 copies, including 14906 copies in the state language.

Analytical part

Analyzing the work of this standard during interviews with teachers, students and parents, as well as visual inspection of the college, experts note the need to increase and improve the material base, in particular, modern computer equipment and interactive tools. Also provide Wi-Fi coverage throughout the college for mobility teachers and students.

On the college website www.college.KEEU.kz insufficient information is available for all interested parties. For example, there is no information regarding the educational process (schedule, curriculum, methodological and other documents developed by the college to ensure the educational process, implemented educational programs with indication of academic disciplines (modules), practices provided by the relevant educational program, etc.), about the material and technical support of educational activities, including information on the availability of equipped classrooms, facilities for practical training, libraries, sports facilities, teaching and education facilities, nutrition conditions, electronic educational resources to which students are provided, about the flow of financial and material resources and their expenditure at the end of the fiscal year, the employment of graduates, the latest college news, for the correspondence department, the implementation osudarstvennyh programs, etc.

Experts note the need to increase the specialized literature for the specialty "Computing equipment and software", as well as the possibility of developing the author's works of college teachers.

A student survey conducted during the visit of the EEC of the IAAR showed:

- satisfaction with existing educational resources of the college - "fully satisfies" - 87%, "partially satisfies" - 8.7%
- availability of computer classes and Internet resources - "fully satisfies" - 82.6%, "partially satisfies" - 13%;
- the usefulness of the website of educational institutions as a whole - "fully satisfies" 75.4%, "partially satisfies" - 20.3%;
- classrooms, auditoriums - "fully satisfied" 79.7%;
- equipment and equipment for students are safe, comfortable and modern - "fully satisfies" - 71%, "partially satisfies" - 20.3%.

Strengths / Best Practices

In the course of work on the standard "Resources used in the implementation of educational programs," experts have not identified the strengths of the specialty "Computer Engineering and Software."

EEC recommendations

In order to further develop and improve the activities of the college in the implementation of accredited educational programs, the EEC IAAR recommends:

- improve the work on the virtual learning environment Moodle;
- to expand and equip with computer technology and interactive equipment computer classes for the specialty “Computer Engineering and Software”
- provide coverage of a Wi-Fi network throughout the college for mobility of teachers and students;
- improve the work on regularly updating the college's website on academic accessibility and counseling, the vocational guidance of students, and also intensify work on the implementation of distance learning technologies for the individualization of the educational process, including duplicating them in the state language;
- consider the possibility of adapting the site for mobile devices, for the convenience and mobility of all stakeholders;
- to systematize the work on the assessment of the dynamics of development of material and technical resources and information support of the EP;
- to continue work on the replenishment of the book fund of educational and educational-methodical literature and manuals, as well as electronic textbooks in the state language.

Conclusions EEC on the criteria: (strong / satisfactory / suggest improvements / unsatisfactory)

The EEC notes that the specialized profile of the college according to this standard contains 6-satisfactory and 9 suggests an improvement.

6.6. Standard "Standards in the context of specialties." Natural and Technical Sciences

The evidence part

The organization of educational activities in KEEU, in the context of accredited educational programs, is carried out through the planning of the educational process and the content of educational programs, the choice of ways to conduct them.

In order to familiarize students with a professional environment and topical issues in the field of specialization, as well as to acquire skills based on theoretical training, the education program should include disciplines and activities aimed at gaining practical experience and skills in the specialty in general and major disciplines in particular.

In order to improve the management of educational programs, plans were developed and approved for the development of the technical department, in particular, the specialty “Computer Engineering and Software”. The main objective of the development plan of the educational program is to improve the conditions for obtaining a full-fledged, high-quality vocational education in accordance with the KEENU’s vision, mission and strategy, aimed at creating competitive and highly qualified personnel in IT-spheres.

Analytical part

Analysis of the work on the standard "Standards in the context of specialties" showed that when developing the development plan for the specialty "Computing equipment and software" the following were not taken into account:

- involvement of employers in the process of improving the EP, the definition of professional competencies of graduates, the preparation of educational and methodological support of the disciplines offered by the employer, allowing students to receive high-quality professional education;
- the need for professional certification of students in the field of specialization in the learning process;
- the international cooperation;
- attracting graduates to various college events, etc.

Strengths / Best Practices

In the course of work on the standard "Standards in the context of specialties," experts have not identified the strengths of the specialty "Computer Engineering and Software."

EEC recommendations

In order to further develop and improve the activities of the college in the implementation of accredited educational programs, the EEC IAAR recommends:

- to practice carrying out separate occupations at the enterprises of the corresponding specialization;
- strengthen communication with college graduates - attract them to participate in various events and consider the possibility of creating an Alumni Association;
- to initiate work on attracting practitioners with experience in enterprises in the field of specialization of the EP.

Conclusions EEC on the criteria: (strong / satisfactory / suggest improvements / unsatisfactory)

EEC notes that a specialized college profile for this standard contains a 1-satisfactory criterion, and 3 suggests improvement.

VII REVIEW OF STRONG PARTIES / BEST PRACTICES FOR EACH STANDARD

6.1. Standard "Educational Program Management"

The TVE organization should document all the main business processes governing the implementation of the EP.

6.2. Standard «Specifics of the educational program»

The processes and criteria for evaluating learning outcomes should be transparent.

6.3. Standard «Teaching staff and teaching effectiveness»

An important factor is the participation of the teaching staff in society.

(VIII) REVIEW OF THE RECOMMENDATION ON IMPROVING QUALITY

List of EEC recommendations on all standards related to the fulfillment of criteria

6.1. Standard "Educational Program Management"

- to ensure the improvement of the College Development Strategy with a clarification of specific activities and indication of indicators, as well as expected results and required resources;
- to intensify efforts to improve the quality of the educational process, taking into account the quality management system and the strategic college development plan;
- identify mechanisms for the formation and regular review of the development plan for the EP and monitoring its implementation;
- to provide an analysis of the effectiveness of changes in the EP, assessment of the performance of the units and their interaction;
- to initiate the work of the system of collecting and analyzing statistics in the management processes of the EP.

6.2. Standard «Specifics of the educational program»:

- modify the graduate model in accordance with their professional activities in the development, modification, adaptation, adjustment and maintenance of software using modern software tools;
- update the specialty "Computer equipment and software" in order to determine the compliance of the training of specialists with the realities of the modern labor market, the requirements of existing organizations and enterprises of the region;
- determine the content, scope, logic of the relationship of academic disciplines and their impact on the formation of the basic and professional competencies of the graduate with the

requirements of employers;

- develop a system for monitoring the quality of education to analyze the achievements of subject results;

- to develop a system for monitoring the satisfaction of students and managers of enterprises based on the results of industrial training and professional practice in the specialty "Computing equipment and software";

- to systematize the work on the innovative methods application and forms of education in the educational process

- form the composition of the attestation examination commission from among qualified specialists of enterprises and representatives of collegial bodies in accordance with order No. 125 with changes from January 30, 2017 in the ratio of 65% from representatives of employers and 35% from representatives of technical and vocational education;

- to update the topics of course and diploma projects in accordance with the modern level of development of information technology;

- to concretize the content of the development plan of the OP specialty "Computer Engineering and Software

6.3. Standard "Teaching staff and effectiveness"

- consider the possibility of increasing the share of practitioners involved in the educational process for teaching special subjects and holding master classes, seminars, etc .;

- develop management mechanisms to stimulate and motivate the professional and personal development of college teachers;

- to strengthen the control on the selection of personnel, taking into account the basic knowledge of the specialty "Computing equipment and software";

- intensify the work of the rating system of teachers for the effective management of both the system of increasing the professional growth of teachers and the effective management of the quality of the educational services provided;

- monitor the satisfaction of the teaching staff to improve the efficiency and quality of the educational process of the college;

- to provide an opportunity to improve the skills and improve the professional level of teachers;

- consider the possibility of international cooperation in the field of improving pedagogical and methodological skills and exchange of experience with foreign colleagues on the use of innovative educational technologies;

- to strengthen the work to increase the number of teachers of special disciplines for internships at industrial enterprises in the specialty profile;

- to improve the work of the school of the young teacher and mentoring;

- to increase the number of copyright developments in special disciplines;

- consider the possibility of organizing English language courses for college teachers.

6.4. Standard "Studenten":

- develop a program to support gifted students;

- find the possibility of professional certification of students in the field of specialization in the learning process;

- develop a mechanism for the implementation of standards for professional training of WorldSkills international championships in the declared competencies;

- organize circle works and electives in accordance with the specialization;

- develop a mechanism for monitoring the employment and professional activities of graduates;

- initiate a mechanism for encouraging students to self-education;

- to increase production excursions to enterprises in the specialty "Computer Engineering and Software";

- strengthen communication with college graduates - attract them to participate in various events and consider the possibility of creating an Alumni Association;

- improve career guidance work using innovative technologies.

6.5. Standard «Resources used in the implementation of educational programs»:

- to improve the work on the virtual learning environment Moodle;
- to expand and equip with modern computer equipment and interactive equipment computer classes for the specialty “Computer Engineering and Software”;
- provide coverage of Wi-Fi networks throughout the college for the mobility of teachers and students;
- improve the work on regularly updating the college's website on academic accessibility and counseling, vocational guidance for students, and intensify work on the implementation of distance learning technologies for the individualization of the educational process, including duplicating them in the state language;
- consider the possibility of adapting the web - site for mobile devices, for the convenience and mobility of all interested parties;
- to systematize the work on the assessment of the dynamics of development of material and technical resources and information support of the EP;
- to continue work on the replenishment of the book fund of educational and educational-methodical literature and manuals, as well as electronic textbooks in the state language.

6.6. Standard "Standards in the context of individual specialties"

- to practice carrying out separate occupations at the enterprises of the corresponding specialization;
- to conduct research in the field of teaching methods for the implementation of their own developments for academic disciplines of educational institutions;
- to initiate work on attracting practitioners with experience in enterprises in the field of specialization of the EP.

(IX) REVIEW OF RECOMMENDATIONS ON THE DEVELOPMENT OF EDUCATIONAL ORGANIZATION

Given the geographical location of the college, the management of the Private Institution "College KEENU" is recommended to develop and implement in the college a program for the development of international cooperation.

Appendix 1. Score table «INSTITUTIONAL PROFILE PARAMETERS»

№	Criteria for assessments	Position of the organization of education			
		Strong	Satisfactory	Suggest improvement	Unsatisfactory
Standard "Educational Program Management"					
1	The VET organization demonstrates the development of an EP development plan, its focus on meeting the needs of the state, stakeholders and students.		+		
2	The VET organization should ensure the adequacy of the EP development plan with available resources, the needs of the labor market and the educational policy of the Republic of Kazakhstan.		+		
3	The VET organization should involve representatives of groups of stakeholders, including students, the teaching staff and employers in the development of the EP development plan.		+		
4	The VET organization demonstrates the transparency of the formation of the EP development plan. The VET organization ensures that stakeholders are aware of the content of the EP development plan and the processes of its formation.		+		
5	The VET organization should determine the mechanisms for the formation and regular review of the EP development plan and the monitoring of its implementation.			+	
6	The VET organization systematically collects, accumulates and analyzes information on the implementation of the EP and conducts self-examination in all directions, develops and revises the development plan of the EP		+		
7	The development plan of the EP is held a public discussion with representatives of all interested parties, on the basis of proposals and amendments, which the authorized collegial body of the VET organization makes changes to the project.		+		
8	The VET organization demonstrates the degree of implementation of the principles of sustainability, efficiency, effectiveness, priority, transparency, responsibility, delegation of authority, differentiation and independence of the financing system.		+		
9	EP management should include:				
9.1.	Operational control through processes		+		
9.2.	Mechanisms for planning, development and continuous improvement		+		
9.3.	monitoring, including the creation of reporting processes, allowing to determine the dynamics in the activities and implementation of plans			+	
9.4.	analysis of the effectiveness of changes			+	
9.5.	assessment of the effectiveness and efficiency of the units and their interaction			+	

10	In VET - organization should be document all major business processes governing the implementation of the EP.	+			
11	The VET organization must demonstrate a clear definition of those responsible for business processes, an unambiguous distribution of staff duties, and a delineation of the functions of collegial bodies involved in the implementation of the EP.		+		
12	The VET organization should demonstrate the procedure for approving, periodically reviewing (revising) and monitoring programs and documents regulating this process.		+		
13	The VET organization should ensure the availability and effective functioning of a system of information and feedback for students, employees and stakeholders.		+		
14	The EP management must demonstrate the successful functioning of the EP quality assurance system, including its design, management and monitoring, their improvement, and making decisions based on facts.		+		
15	EP management must provide evidence of the transparency of the educational program management system.		+		
16	The VET organization must demonstrate the presence and evidence of intensive use in the management processes of the EP system for the collection and analysis of statistics.			+	
17	The management of EP should provide a measure of the degree of satisfaction of the needs of the teaching staff, staff and students, and demonstrate evidence that the deficiencies found during the change process are corrected..		+		
18	EP management must demonstrate evidence of openness and accessibility for students, the teaching staff and parents.		+		
Итого: 22		1	16	5	
Standard "Specificity of educational programs"					
19	The VET organization must demonstrate the availability of the developed educational program, including graduate models of knowledge, skills, basic and professional competencies, personal qualities.			+	
20	VET organization must provide evidence of the participation of the teaching staff and employers in the development of EP, ensuring their quality.			+	
21	The VET organization should determine the content, scope, logic of the relationship of academic disciplines, as well as the influence of disciplines, industrial training and professional practice on the formation of basic and professional competencies of graduates.			+	
22	The management of EP must demonstrate the presence in the content of academic disciplines a professional context.		+		
23	EP management must demonstrate the presence of an effective balance between theoretical and practice-oriented disciplines.		+		
24	The list and content of the disciplines should be accessible to students. Disciplines cover all the questions in the field of study.		+		
25	The structure of the educational program should provide for various activities, the content of which should contribute to the development of basic and professional competencies of students taking into account their personal characteristics.			+	
26	An important factor is the renewal of educational programs taking into account the interests of employers.			+	
Evaluation Criteria: Individualization of the EP					

27	The management of EP should provide equal opportunities for students, including regardless of the language of instruction.		+		
28	The management of EP must ensure the availability and effective functioning of the system of individual assistance and counseling of students on the educational process.		+		
29	The manual creates the conditions for the effective development of EP		+		
30	EP management must demonstrate the use of the advantages, individual characteristics, needs and cultural experience of students in the implementation of EP.		+		
31	EP management must demonstrate individual support for students in the implementation of EP.		+		
32	The management of EP must prove the presence of a monitoring system for the achievements of students.			+	
33	EP management must ensure the availability and effective functioning of the mechanism for an objective, accurate and comprehensive assessment of learning outcomes.		+		
34	EP management must ensure objectivity in the assessment of learning outcomes and the degree of formation of students' basic and professional competencies, transparency and adequacy of the tools and mechanisms for their assessment.		+		
35	EP management must ensure that the procedures for assessing the level of knowledge and skills of students with the planned learning outcomes and program objectives.		+		
36	The management of EP should conduct diagnostics of knowledge and skills of students at the beginning of training on the course and study of academic disciplines.		+		
37	The processes and criteria for evaluating learning outcomes should be transparent.	+			
38	The management of EP must ensure the development of skills for students to continue their studies at the following educational levels.		+		
Evaluation criteria: teaching methods					
39	EP management must ensure the systematic development, introduction and effectiveness of active teaching methods and innovative teaching methods.			+	
40	During the implementation of the educational program, the student's independent work should be monitored.			+	
41	EP management must ensure the possibility of passing industrial training and professional practice in the specialty / qualifications of students and monitor the satisfaction of students, managers of enterprises - places of practice and employers.			+	
42	EP management must ensure the implementation of the results of practical achievements of teachers in the educational process.			+	
Total: 24		1	13	10	0
Standard "Teaching staff and teaching effectiveness"					
43	For the implementation of educational programs, the EP's management should involve practitioners and determine the share of the subjects they read.			+	
44	The management of EP should motivate the teaching staff to constantly apply innovations in the educational process.			+	
45	The EP's management must demonstrate compliance of the personnel potential of the teaching staff with the specific features of educational programs.			+	

46	The VET organization should demonstrate public availability of information about the teaching staff		+		
47	The management of EP should provide monitoring of the pedagogical staff, a systematic assessment of the competence of teachers, a comprehensive assessment of the quality of teaching.			+	
48	The workload of educators should include a variety of activities. The EP management must demonstrate evidence of the fulfillment by teachers of all types of planned workload.		+		
49	The management of EP should provide targeted actions for the development of young teachers.		+		
50	EP management must demonstrate mechanisms to stimulate the professional and personal development of teachers and workers.			+	
51	The management of EP should provide monitoring of the satisfaction of the teaching staff.			+	
52	The EP's management must demonstrate the IT competence of the teaching staff, the application of innovative methods and forms of training.			+	
53	An important factor is the participation of the teaching staff in society.	+			
Total: 11		1	3	7	
Standard "Students"					
54	EP management must demonstrate the policy of forming a contingent of EP students and the transparency of its procedures.		+		
55	EP management must demonstrate awareness of the main roles (professional, social) of learners based on learning outcomes.		+		
56	An important factor is the possibility of professional certification of students in the field of specialization in the learning process.		+		
57	An important factor is the availability of support programs for gifted students.			+	
58	The management of EP should make the maximum amount of effort to provide graduates with employment and liaison with graduates.		+		
59	An important factor is the monitoring of employment and professional activities of graduates.			+	
60	The management of EP should actively encourage students to self-education outside the main program (as part of extracurricular activities).			+	
61	The EP's management should provide the opportunity for students to exchange and express opinions.		+		
62	EP management must create a mechanism for monitoring student satisfaction with the activities of the TIPO organization in general and certain services in particular.			+	
63	EP management must demonstrate the functioning of the feedback system, including the prompt submission of information on the results of the evaluation of learning outcomes.		+		
Total: 10			6	4	
Standard "Resources used in the implementation of educational programs"					

64	The EP Guidelines should ensure that students have access to the maximum possible amount of structured, organized information on the subjects taught: for example, presentation materials, lecture notes, compulsory and additional literature, practical tasks, etc.		+		
65	Training equipment and software used for the development of educational programs should be similar to those used in the relevant industries and meet the safety requirements for operation.		+		
66	The VET organization creates a learning environment that promotes the formation of basic and professional competencies and takes into account the individual needs and opportunities of students.			+	
67	The VET organization should create conditions for the development of applied skills of students and the teaching staff in the disciplines being studied and the possibility of realizing these skills in competitions and competitions or in some other way in practice.			+	
68	The VET organization should assess the dynamics of the development of material and technical resources and the information support of the EP			+	
69	The VET organization should create a learning environment that includes:				
69.1	technological support for students and teaching staff in accordance with the specifics of the educational program			+	
69.2	academic accessibility - students have access to personalized educational resources		+		
69.3	academic counseling - there are personalized educational resources that help students		+		
69.4	vocational guidance - students have access to personalized educational resources that assist in the selection and achievement of career paths.		+		
69.5	the required number of classrooms equipped with modern technical training facilities that meet sanitary and epidemiological standards and requirements.			+	
69.6	the required number of computer classes, reading rooms, multimedia and language laboratories, the number of seats in them			+	
69.7	a book fund, including a fund of educational and methodical literature on paper and electronic media, periodicals in the context of training languages			+	
69.8	free access to educational Internet resources			+	
70	EP management should determine the degree of implementation of information technology in the educational process of the EP, to monitor the use and development of innovative teaching technologies by the teaching staff, including those based on ICT			+	
71	EP management must demonstrate the information on the website on the web resource.		+		
TOTAL: 15			6	9	
“Standards in the context of individual specialties”					
Natural and Technical Sciences					

6	Educational programs in technical areas, such as "Metallurgy and mechanical engineering", "Communication, telecommunications and information technologies", "Production, installation, operation and repair (by industry)", "Communications, telecommunications and information technologies", etc. must meet the following requirements:			
	In order to familiarize students with a professional environment and topical issues in the field of specialization, as well as to acquire skills based on theoretical training, the education program should include disciplines and activities aimed at gaining practical experience and skills in the specialty in general and major disciplines in particular.		+	
6.1	excursions to enterprises in the field of specialization (factories, workshops, research institutes, laboratories, etc.)			+
6.2	carrying out separate occupations or the whole disciplines at the enterprise of specialization			+
6.3	the use of workshops for practical training, solving practical problems relevant to enterprises in the field of specialization, etc..			+
6.4	The teaching staff involved in the EP should include practitioners with experience in enterprises in the field of specialization of the EP.			+
TOTAL: 4			1	3
TOTAL IN GENERAL: 86		3	45	38

