



«АККРЕДИТТЕУ ЖӘНЕ РЕЙТИНГТІҢ  
ТӘУЕЛСІЗ АГЕНТТІГІ» КЕМ

НУ «НЕЗАВИСИМОЕ АГЕНТСТВО  
АККРЕДИТАЦИИ И РЕЙТИНГА»

INDEPENDENT AGENCY FOR  
ACCREDITATION AND RATING

## REPORT

**on the results of the external expert commission work on compliance assessment with the requirements of the standards of specialized study programs accreditation**

***6B07117 Designing and manufacturing of engineering products (accreditation)***

***7M07115 Technological support of machine-building production (accreditation)***

***6B07111 Automobiles and automobile industry (accreditation)***

***7M07116 Automobiles and automobile industry (аккредитация)***

***6B07114 Power supply of industrial enterprises and civil objects (accreditation)***

***7M07114 Power industry (accreditation)***

**M.KH.DULATY TARAZ STATE UNIVERSITY**

***Site Visit Dates: from November 25 to November 27, 2019***

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

**Addressed to**  
**Accreditation**  
**IAARCouncil**

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**25 - 27 November 2019**

**Taraz, 2019**

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**(I) ABBREVIATIONS**

ECTS	- European Credit Transfer and Accumulation System
PhD	- Doctor of Philosophy
AIS	- automated information system
JSC	- joint-stock company
BC	- Basic Courses
HE	- Higher Education
NEAX	- National Economy Achievement Exhibition
EASA	- External Assessment of Students' Achievement
HEE	- Higher Educational Establishment
SEB	- State Examination Board
SCES	- State Compulsory Educational Standard
QMSD	- Quality Management System Document
UNT	- Unified National Testing
UHEMS	- Unified Higher Education Management System
ZhB RSE	- Zhambyl branch of the Republican State Enterprise
ATI	- Advanced Training Institute
ISP	- Individual Study Program
IOS	- International Organization for Standardization
KRIWM	- Kazakh Research Institute of Water Management
CE	- Catalog of Electives
MoES RK	- Ministry of Education and Science of the Republic of Kazakhstan
MSP	- Modular study program
MOOC	- Massive Open Online Course
IS IOS	- International Standard of the International Organization for Standardization
RW	- Research Work
SRW	- Student Research Work
RMFB	- Research and Methodological Faculty Bureau
IAQAE	- Independent Agency for Quality Assurance in Education
RMU	- Research and Methodological University
RMUC	- Research and Methodological University Council
SP	- Study Program
BPAMD	- Bologna Process and Academic Mobility Department
SC	- Specialty Courses
PPW	- Primary Processing Of Wool
AS	- Academic Staff
REM	- Right of Economic Management
R	- Regulation
RSE	- Republican State Enterprise
RSE on the REM	- Republican State Enterprise on the Right of Economic Management
WI	- Working Instruction
RK	- Republic of Kazakhstan
WC	- Working Curriculum
MM	- Mass Media
QMS	- Quality Management System
SRC	- Students' Research Clubs
CNR	- Construction Norms and regulations
OPS	- Operating Procedure Standards
SCB	- Student Construction Brigade

SIW	- Student Independent Work
OH	- Office Hours
US	- University Standard
SCL	- Student-centered Learning
TarSU	- Taraz State University
LLP	- Limited Liability Partnership
EMCC	- Education Methodic Course Complex
EMCS	- Education Methodological Complex of specialties
CPDC	- Career and Professional Development Center
CNIT	- Center of New and Information Technologies
SSC	- Student Service Center



## **(II) INTRODUCTION**

In accordance with the order No. 109-19 from 10/22/2019 of the Independent Agency for Accreditation and Rating from November 25 to 27, 2019, the external expert commission assessed the conformity of study programs 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry of M.Kh.Dulaty Taraz State University for Specialized Accreditation Standards of the IAAR (No. 10-17-OD of February 24, 2017, fifth edition).

The report of the external expert commission (EEC) contains an assessment of the submitted study programs to the IAAR criteria, recommendations of the EEC on further improvement of study programs and profile parameters of study programs.

### **The composition of the EEC:**

1. **The chairman of the commission** is Gita Revalde, PhD in Physics, corresponding member of the Latvian Academy of Sciences, professor at the Riga Technical University, expert of the Latvian Science Council, member of the Latvian Science Association, President of the Almaty University of Energy and Communications (Almaty);

2. **Foreign expert** - Kochkorbaeva Chinara Turgunbaevna, head of the laboratory, Kyrgyz-Uzbek University (Osh, Kyrgyzstan);

3. **Expert** - Rakisheva Aigul Kuanyshbaevna, Ph.D., associate professor, project manager (Nur-Sultan);

4. **Expert** - Zakirova Dilnara Ikramkhanovna, Doctor PhD, University "Turan" (Almaty);

5. **Expert** - Duzkeneva Naylya Akataevna, Ph.D., D. Serikbaev East Kazakhstan State Technical University (Ust-Kamenogorsk);

6. **Expert** - Omarbekova Aikumis Ilyasovna, Ph.D., L. Gumileva Eurasian National University (Nur-Sultan);

7. **Expert** - Smirnov Mikhail Borisovich, Ph.D., professor, Shakarim State University of Semey;

8. **Expert** - Moiseenko Oleg Viktorovich, Candidate of Technical Sciences, Associate Professor, M. Dulatov Kostanay Engineering and Economic University (Kostanay);

9. **Expert** - Abdimuratov Zhubanyshbay Suinullaevich, Candidate of Technical Sciences, Associate Professor, Almaty University of Energy and Communications (Almaty);

10. **Expert** - Ibragimov Aman Ilesovich, candidate of pedagogical sciences, acting Associate Professor, Abay Kazakh National Pedagogical University (Almaty);

11. **Expert** - Adilbekova Lyazzat Makhaykyzy, Ph.D., professor, Kazakh State Women's Pedagogical University (Almaty);

12. **Employer** - Azhmagambetova Maya Turarovna, Head of the Human Capital Development Department, Chamber of Entrepreneurs of the Zhambyl Region (Taraz);

13. **Employer** - Toktybaeva Bakhytkul Egemberdievna, director of the sewing workshop "Dana-Del", member of the Council of Business Women of the Chamber of Entrepreneurs of the Zhambyl Region (Taraz);

14. **Student** - Kuatbek Aliya Ergalykyzy, 3rd year student of the educational institution "5B051000-State and Local Government", Taraz University of the Humanities and Innovation (Taraz);

15. **Student** - Khasan Alievich Sarymamedov, 1st-year student of SP "7M01601 - Training of History Teachers", Taraz State Pedagogical University (Taraz);

16. **Student** - Turgyn Ansar Azamatuly, 3rd year student of the educational

institution “1201000 Maintenance and repair of motor vehicles”, Taraz College of Service and Technology (Taraz);

17. **Student** – Abitai Marzhan Sakenkyzy, 3rd year student of SP “5B042100 Design”, Taraz State Pedagogical University (Taraz);

18. **The observer from the Agency** is Timur Yerbolatovich Kanapyanov, Dr. PhD, Head of International Projects and Public Relations of the IAAR (Nur-Sultan).



### **(III) REPRESENTATION OF THE EDUCATION ORGANIZATION**

Taraz State University named after Mohammed Khaidar Dulaty (TarSU) was formed by the Decree of the Government of the Republic of Kazakhstan No. 256 dated 03.24.1998 by reorganization and merger of the Dzhambul irrigation and drainage and construction institute, the Dzhambul technological institute of light and food industry and Zhambyl university.

As the republican state state-owned enterprise of the Ministry of Education and Science of the Republic of Kazakhstan, M.Kh.Dulaty TarSU was established in accordance with the Decree of the Government of the Republic of Kazakhstan "On the Reorganization of the Institutions of the Ministry of Education and Science of the Republic of Kazakhstan" No. 1879 dated 12/08/1999. In 2012, the Government of the Republic of Kazakhstan No. 544 dated 04/28/2012, State Enterprise "Mohammed Khaidar Dulaty Taraz State University" was transformed into a Republican state enterprise on the basis of economic management.

Personnel training at TarSU is carried out in accordance with the State license for educational activities in the field of higher and postgraduate professional education No. 12020167 of 11/14/2012, and the annexes to the license of 12/22/2017, order of the Ministry of Education and Science of the Republic of Kazakhstan No. 237 of 05/23/2017 203 applications were submitted from TarSU; on 11/23/2019, 192 study programs were included in the Register, of which 106 bachelor's degree programs, 81 master's degree programs and 5 doctoral study programs.

As part of the implementation of the multilingual study program in 13 specialties, academic groups have been formed where classes are conducted in three languages. WC is structured in such a way that for the Kazakh branch, 50% of academic disciplines are taught in Kazakh, 30% in English, 20% in Russian. By 2019, the share of study programs implemented in three languages is planned to be increased to 30%.

Over the past 5 years, the university has trained more than 13,000 specialists for the region and the country. The quality of training and the demand for graduates are determined by a rather high level of their employment (in the 2017-2018 academic year - 71.66%, according to employment indicators). In general, for the period from 2015-2018 On average, 77% of graduates were employed.

The contingent of full-time students as of November 05, 2019 is 6425 students (of which 1489 are based on the state educational grant), part-time students - 5239, distance learning - 1103, evening classes - 388, 356 undergraduates and 44 doctoral students.

Currently, the total number of full-time teachers at the university is 630 people. The full-time teachers include 39 doctors of sciences, professors, 242 candidates of sciences, associate professors, 36 doctors of PhD, 262 masters. The university employs 25 people who are part of the NAS, industry academies of sciences and professional associations of the Republic of Kazakhstan.

The university consists of 9 faculties: faculty of economics and business; Faculty of Law; Faculty of Water Management, Ecology and Construction; Faculty of Oil, Gas and Mechanics; Faculty of Technology; Faculty of Information Technology, Automation and Telecommunications; Faculty of Humanities and Social Sciences; Faculty of Postgraduate Education; Faculty of distance learning. There are 43 departments in the structure of these faculties, including a military department.

M.Kh.Dulaty Taraz State University has a powerful modern material and technical base, which includes 56 objects with a total area of 161,340.75 sq.m.

Teaching and research processes are organized and held in 14 teaching and laboratory buildings with a total area of 73924.4 sq.m. There are 88 laboratories at the



faculties equipped with the necessary equipment and measuring instruments. For educational purposes, the unique research laboratory “Nanoengineering Research Methods” is used, which is one of 15 engineering laboratories opened in the leading universities of Kazakhstan in the academic year 2007-2008 on the initiative of the President of the country N. Nazarbayev and is equipped unique modern foreign equipment.

M.Kh.Dulaty TarSU has a sufficient sports base, which consists of a combination of various indoor and outdoor sports facilities. The total area of gyms, venues and audiences is 4564.15 m<sup>2</sup>. The university has 7 indoor gyms equipped with appropriate sports equipment. The university also has a soccer field with grassy lawn and treadmills; field hockey field with regupole coating; 2 outdoor football pitches; 2 basketball and 2 volleyball courts; 4 tennis courts and a fitness camp. The area of open sports complexes is 22983 sq.m.

Currently, the university has three dormitories with a total area of 18,370.8 square meters for 804 beds. For the organization of student meals at the university, a youth leisure center "Zhastar Alemi" operates with a total area of 3069.9 sq.m. for 400 seats, as well as a cafe in the main building for 60 seats, 2 buffets - canteens in the technological building for 80 seats, 2 buffet-canteens in the hydro complex for 60 seats. Medical care for employees and students is provided by the health center and city clinic number 3.

In 2014, TarSU was recognized as the “Industry Leader” (certificate of the National Business Rating of the Republic of Kazakhstan), and the rector was recognized as “The Best Leader of the Year”. In 2017, according to the results of the world rating of the Webometrics Ranking of World Universities research group ([www. Webometrics.com](http://www.Webometrics.com)), TarSU ranks 11104 among 20 thousand universities in the world, and 21 among 112 domestic universities. Since 2018, the university has been participating in the ranking of universities of the most “environmentally friendly” universities in the world Greenmetric.

The University is a member of 5 international, national and regional professional associations and associations: University of the Shanghai Cooperation Organization (SCO, dated 12.10.2012), Eurasian Association of Universities (dated 15.04.2015), European Association of Higher Education Institutions (EURASHE) ( dated July 1, 2015), the Association of Universities of Central Asia (dated March 15, 2017), the Association of Asian Universities (dated June 25, 2017).

A special department “Theoretical and Applied Mechanics” (hereinafter “Mechanics and Mechanical Engineering”), serving OP 6B07117 - “Designing and Manufacturing of Engineering Products”, 7M07115 - “Technological Support of machine-building production”, has been operating since 1998, when the M.Kh.Dulaty TarSU.

In 2001, the Department of “Machines and Apparatuses of Light Industry” was joined to the Department of Theoretical and Applied Mechanics.

From 2001 to 2008 The Department of Theoretical and Applied Mechanics trained engineers of the specialties Design and Service of Machines and Automatic Machines of Light and Textile Industries and Engineering Technology, Mechanical Engineering, Metal-Cutting Machine Tools and Instruments, as well as bachelors specializing in Mechanical Engineering.

In 2008, the Department of Theoretical and Applied Mechanics was renamed the Department of Mechanics and Mechanical Engineering. Since then, the department has been preparing bachelors in the specialty 5B071200 - Mechanical Engineering and masters in the specialty 6M071200 - Mechanical Engineering.

From 1998 to 2011, the department conducted the publication of the republican scientific journal "Mechanics and Modeling of Technology Processes", which published the results of research work by scientists of higher educational institutions, production engineers, graduate students and undergraduates. Over the years, under the leadership of

the head of the department, Doctor of Technical Sciences, Professor Zhunisbekov T.M. 1 doctoral and 12 master's theses were defended.

At present, the composition of the teaching staff of the Department "Mechanics and Mechanical Engineering" for the academic year 2019/2020 is 14 people, of which internal part-time workers are 3 people, and external part-time workers are not.

The number of full-time faculty members is 11 people, including: 1 doctor of technical sciences, 5 candidates of technical sciences, masters 5 people. Graduation in the department is - 55%.

Teachers of the department issued 2 textbooks and more than 25 textbooks and monographs, received more than 20 copyright certificates and patents.

Since 2011, the head of the department is Ph.D., associate professor, corresponding member of the Academy of Natural Sciences Dzhakiyaev D.K.

The contingent of students in the 2018/2019 academic year in SP6B07117 - "Designing and manufacturing of engineering products" amounted to 57 people, including 56 on the basis of a state grant, in SP 7M07115 - "Technological support of machine-building production" - 4, including the basis of the state grant - 4 people.

Employment of graduates is promoted by the "Center for Career and Professional Development" created at the university. In 2018, 80% of graduates were employed.

In the framework of the program of external academic mobility, students of SP 6B07117 - "Designing and manufacturing engineering products" underwent training for one semester 3 students (Lithuania, Spain), for the 2016-2017 academic year, and 1 student (Poland) for the academic year 2017-2018.

3 undergraduates from M. Auezov SKSU underwent a scientific internship at the Department of Mechanics and Mechanical Engineering, M.Kh. Dulaty TarSU under the program of internal mobility according to SP 7M07115 - "Technological support of machine-building production".

The research work of the teachers of the department is carried out in the field of mechanics of a deformable solid, automation and mechanization of processes and operations of light industry, the creation of the theoretical foundations and design of renewable energy sources and foundry engineering.

The department "Transport equipment and technologies" was established in 1973, on the basis of the department "Tractors and cars" it was called "Machine repair". In 1985, the department was renamed and became known as "Operation and Repair of Machines." After the opening of the specialty 2805 "Automobiles and Machine Repair", the department "Operation and Repair of Machines" in 1994 was renamed to "Automobiles and Machine Operation". Students were trained in the department in two specialties: 1514 "Mechanization of land reclamation works" and 2805 "Automobiles and automobile industry".

In 2004, in connection with the transition to a new classifier of undergraduate specialties, the specialties received a new name 050713 "Transport, transport equipment and technologies", 050901 "Organization of transport, traffic and operation of transport." In this regard, since May 2005, the department has been called "Transport Engineering and Technology."

The department is equipped with laboratory stands and equipment. In recent years, the laboratory base of the department has been updated with new equipment for a total amount of 4.8 million tenge.

The contingent of full-time and part-time (distance) students studying at the 6B07111-Automobiles and Automotive Economy study program for the 2019-2020 academic year is 149 people, including 140 undergraduate and 9 people graduate students. Of these, 123 people are in the Kazakh branch and 17 people are studying in the Russian branch. Under the grant, 22 people study, on a paid basis -118 people in undergraduate

studies, and 8 people study in the master's program under the grant, -1 people on a paid basis.

Qualitative and quantitative composition of teachers at the SP "Automobiles and Automobile Facilities" for the academic year 2019-2020, the total number of staff on the staffing list is 16 people, including 12 full-time teachers, the degree is 50%, and the average age is 48 years.

Information on the employment of graduates of the 2019 undergraduate study program "Automobiles and Automotive Economy" is 75%, master's program - 60%.

In the period 2014-2019 According to the program of external academic mobility, only 1 student passed in one semester at Kaunas University of Technology (Lithuania). At the moment, no one is studying academic mobility.

The teaching staff of the department "Transport vehicles and technologies" carry out research projects with search-driven projects: "State budget research work on the theme" Development of measures to ensure the reliability of machines during their operation on the basis of improvement, planning, technology and management of maintenance and repair of machines. "

The department was formed in 1967 as part of the Dzhambul irrigation and drainage and construction institute on the basis of the department "Physics" and was called "Electrical Engineering and Automation". In 1986, the Department of Electrical Engineering and Automation was transformed into the Department of Electrification and Automation of Agricultural Production. In order to train electrical engineers in the field of agricultural production in 1986, 25 students were accepted in specialty 2104 - "Electrification and Automation of Agriculture", in 1991 the first graduation of electrical engineers in this specialty was released.

In 1997, the department opened new specialties "Alternative and Renewable Energy Sources", "Hydroelectric Power", "Electromechanics". Since 1986, the department trained and graduated 1270 electrical engineers and bachelors of energy. In 2007, magistracy in the specialty 6M071800 - Power Engineering was opened at the department, the preparation of masters of scientific, pedagogical and specialized fields were started.

All these years, the department trained specialists in the following undergraduate and graduate education programs: 5B071800 - Power Industry (undergraduate); 5B081200 - Energy supply for agriculture (undergraduate); 6M071800 - Power industry (master). Since 2019, the Department of Power Engineering has been preparing specialists for the new educational program 6B07114 - Power Supply for Industrial Enterprises and Civil Facilities, Bachelors and 7M07114 - Power Engineering, Master Students.

The department is equipped with laboratory stands. In recent years, the laboratory base of the department has been updated with modern laboratory stands (manufacturer: Uchtech-Profi, Russia).

The contingent of students studying full-time and part-time (distance) departments in the field of study and specialties for the 2019-2020 academic year is 345 people, including 142 full-time students in the bachelor's program, 10 master's students in the magistracy, 193 distance learning (distance) students. Of these, 284 people in the Kazakh branch and 61 people study in the Russian branch. 37 people study under the grant, 308 people study on a paid basis.

Qualitative and quantitative composition of teachers in the SP "6B07114 - Power Supply for Industrial Enterprises and Civilian Facilities, 7M07114 - Power Engineering" for the academic year 2019-2020, the total number of staffing is 14 people, including full-time teachers - 14, the degree - 42.8% , the average age is 49 years.

Information on the employment of graduates of 2019 in the SP "6B07114 - Power Supply for Industrial Enterprises and Civilian Facilities, 7M07114 - Electric Power" undergraduate -74.4%, master's degree -75%.

In the period 2014-2019 Under the external academic mobility program, only 1 undergraduate was trained in Kaunas University of Technology (Lithuania) for one semester. At the moment, no one is studying academic mobility.

The academic staff of the department "Power Industry" carries out research work that is innovative in nature:

- "Study of microcontroller control systems for photovoltaic installations";
- "Development of an autonomous power plant of low power based on solar cells."

The total amount of financing over the past 3 years amounted to 3 million tenge.

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

Study programs 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry are accredited to the IAAR for the first time.

#### **(V) DESCRIPTION OF A EEC VISIT**

The work of the EEC was carried out on the basis of the approved Program of the visit of an expert commission specialized in the accreditation of study programs in the TarSU from November 25 to November 27, 2019.

In order to coordinate the work of the EEC on November 24, 2019, an assembly meeting was held, during which the powers were distributed among the members of the commission, the schedule of the visit was clarified, agreement was reached on the choice of examination methods.

In order to obtain objective information on the quality of educational programs in the entire infrastructure of the university, to clarify the content of self-assessment reports, they were met by the rector, vice-rectors of the University for Activities, heads of departments, faculty deans, heads of departments, teachers, students, and students.

Table 1-Information about the target groups that took part in meetings with EEC IARA:

<b>Category of participants</b>	<b>Number</b>
Rector	1
Vice-rectors	5
Head of Departments	30
Deans of faculties	6
Department Heads	9
Teachers	35
Students	74
Graduates	23
Employers	8
<b>Total</b>	<b>191</b>

During the tour, members of the EEC familiarized themselves with the state of the material and technical base, visited the dean's office of the faculty of oil, gas and mechanics, and the classrooms of the departments "Transport Engineering and Technologies", "Mechanics and Mechanical Engineering" and "Electric Power Engineering": 3.0-103 Classroom "Road Conditions and Safety" movement"; 6.1-323 Classroom "Vehicle Safety"; 6.1-324 Classroom "Technical means and traffic management"; 6.1-327 Classroom

"Transport Logistics"; Laboratory 6.1-328 "Fundamentals of relay protection and automation", "Transmission of electrical energy in distribution networks"; Laboratory 6.1-329 "Installation and commissioning of electrical installations up to 1000 V in power supply systems"; Computer class 6.1-330; Class with an interactive board 6.1-333; Laboratory 6.1-415 "Electric machines and electric drives"; Laboratory 6.1-416 "Microprocessor-based control system for the valve and stepper motor"; Laboratory 6.1-417 "Theory of electrical circuits and the basics of electronics"; Classroom of diploma design 6.1-418; Laboratory 2.5.-213 "Laboratory of engineering parts and products"; Laboratory 2.5.-217 "Laboratory of auxiliary equipment of machine-building production"; Laboratory 2.5.-118 "Laboratory of Engineering Mechanisms"; Laboratory 2.5.-117 "Research Laboratory".

In the meeting of the EEC IAAR with the target groups of TarSU carried out the clarification of the mechanisms for the implementation of the university policy and the specification of individual data presented in the report on self-assessment of the university.

EEC members attended training sessions:

- in the discipline "Fundamentals of designing technological equipment of motor transport enterprises", topic: "The study of the device and the principle of operation of equipment for sewage and demolition-washing operations", teacher - Dzhilkibaev E. (Classroom 3.0-112);

- in the discipline "Rational use of oil products in road transport" topic: "Replacement of oil products with other types of fuel and energy", teacher - Ayazbay M.D. (Classroom 3.0-105);

- in the discipline "Relay protection and automation in electrical installations", topic: "Systems of automatic automation" associate professor Esenbaev O.Zh. (Classroom 6.1.333);

- in the discipline "Design of power supply systems", topic: "Choice of power supply scheme", Art. teacher- Nalibaev N.Zh. (Classroom 6.1.330);

- in the discipline "Operation of electrical equipment", topic: "Faults in electrical equipment, methods for their search and elimination", art. teacher-Yeskulova S.Zh. (Classroom 6.1.329);

- lecture lesson on the theme "Flat bending. Determination of lateral force and bending moment. Construction of their diagrams. Determination of normal and shear stress. Full verification of beam strength ", Lecturer, Ph.D., associate professor Zhashen S.Zh., (Classroom 2.5.204);

- a lecture on the topic "Equipment for free forging and hot stamping of metals" Lecturer - Ph.D., associate professor B. Koyaydarov, (lecture room 2.5.204, time 10-00 h.);

- a lecture in front of the teaching staff of the technical cluster, students, accredited educational programs, was a professor at Ariel University in Samaria (Israel) on the topic "Secondary and higher education in Israel: teaching methods of basic and technical disciplines", (Classroom 2.5.204, time 11-00 hours).

During their work, members of the EEC visited the following practice bases for accredited EPs:

- visited the practice base of the Zhasyl El Taraz utility company, which specializes in road works, clearing the city of snow and other types of work using various transport equipment. We also visited a branch of the department of the technical service station "IP Dzhaksygulov", where practical classes are held on car maintenance, repair of components and assemblies, and car body repair;

- visited the practice base of Zhambyl Electric Networks LLP; the main activities of the enterprise are electric power transmission and distribution, electricity supply to cities and districts of Zhambyl region, repair of electrical equipment and electric networks, its reconstruction and modernization. Zhambyl Electric Grids LLP has a branch of the

Department of Power Engineering. In the branch of the department, students undergo industrial, undergraduate, and research practice.

- visited the practice base of Zapchast JSC (Taraz city), which includes the Machine-building shop, Foundry shop, Armature shop, Electric repair shop, Tool shop, Repair and mechanical section and others. The Department of Mechanics and Mechanical Engineering and Zapchast JSC, in November 2019, concluded an agreement on opening a branch of the department at this enterprise.

In accordance with the accreditation procedure, questionnaires were conducted for 97 teachers, 218 students, including junior and senior students.

In order to confirm the information presented in the Self-Assessment Report by external experts, the university's working documentation was requested and analyzed. Along with this, experts studied the university's online positioning through the university's official website [www.tarsu.kz](http://www.tarsu.kz)

Within the framework of the planned program, recommendations on improving the accredited educational programs of TarSU developed by the EEC based on the results of the examination were presented at a meeting with the management on November 27, 2019.



## **(IV) COMPLIANCE WITH SPECIALIZED ACCREDITATION STANDARDS**

### **6.1. Standard "Management of the study program"**

#### ***Evidence part***

In accordance with this standard, the success of the implementation of an educational program is determined, first of all, on the basis of a planned, focused and effective implementation of the goals and plan for the development of the educational program, which, accordingly, should be available for each educational program.

The success of each SP implementation is determined by the systematic, focused and effective implementation of the goals and development plan of the cluster of the program developed above with the involvement of all interested parties, taking into account the satisfaction analysis of students, faculty and staff, analysis of the resources available and necessary for the program, including the material and technical base.

Politics M.Kh. Dulaty TarSU in the field of quality is an integral element of university management and the basis for planning its educational activities. The quality policy is reflected in the internal regulations of the University, the Strategic Development Plan of M.Kh. Dulaty TarSU and other documents. The quality policy is posted in all structural divisions of the university, on the university's website, which is a guarantee of accessibility, openness, transparency not only to employees and students, but also to employers and other interested parties ([www.tarsu.kz](http://www.tarsu.kz)).

The implementation and development of accredited educational programs is determined by the university's mission, M.Kh. Dulaty TarSU Development Program.

In the Development Program of M.Kh. Dulaty Taraz State University for 2019-2022 reflects the main goals of the university:

- ensuring the quality of the innovative educational process, taking leading positions in the training of specialists for the sectors of the economy and social sphere of the region, country and the world;
- improving the quality of scientific research, its effectiveness and recognition with the provision of technology transfer and a high level of commercialization of research results;
- Creation and provision of an active creative environment in the team for the full and harmonious development of the individual.

The development program was developed taking into account the State Program for the Development of Education and Science of the Republic of Kazakhstan for 2016-2019, the Strategic Plan of the Ministry of Education and Science of the Republic of Kazakhstan for 2017-2021, and the regulations of the Ministry of Education and Science of the Republic of Kazakhstan.

The university's mission, vision and strategy are aimed at meeting the needs of the state, society, sectors of the real economy, potential employers and students. These documents are posted on the official website of the university (<http://tarsu.kz/ru/missiya-videniya-napravleniya.html>).

Experts confirm that the Quality Policy M.Kh. Dulaty TarSU was approved by the university rector on September 10, 2019, is available on the university website <http://tarsu.kz/ru/otdel-monitoringa/politika-v-oblasti-kachestva.html> and is available to interested parties. This document presents the main vision of M.Kh. Dulaty TarSU and identified the main goals in the field of quality for the 2019/2020 academic year.

To support the main business processes at the university, a set of internal regulatory documents has been developed (<http://tarsu.kz/ru/vnutrennie-normativnye-dokumenty-universiteta.html>), which regulates the implementation of educational programs - MS ISO

9001: 2015 - Consumer orientation and on the process approach, the Academic rules for the organization of the educational process, the Regulation on the organization of educational and methodical work at the university, the Regulation on the committee for working curricula, the Regulation on the design of educational programs, the Regulation on the publication of the educational and educational wildlife literature, etc.

The University's internal documents are drawn up as part of a quality management system developed based on the requirements of the ISO 9001: 2015 standard regarding the development and provision of services in educational activities (the management system has been certified since 2013). The effectiveness of the QMS is confirmed by Certificate No. 19.0246.026 of February 18, 2019 (Certification System of the Russian Register).

Academic rules of M.Kh. Dulaty TarSU (approved on January 26, 2018) determine the organization of the educational process at the university for all levels of education. This document reflects the questions of the formation of the contingent of students, the organization and planning of the educational process, the organization and passing of practices, the monitoring and evaluation of students' academic achievements, the transfer of deductions and restoration of students, the final state certification and others.

The development plans for accredited study programs for 2019-2021 were reviewed and discussed at a meeting of the Department of Mechanics and Mechanical Engineering, Transport Engineering and Technologies and Electric Power and approved by the Dean of the Department of Oil, Gas and Mechanics for undergraduate and the Dean of the Department of Postgraduate Education for magistracy.

M.Kh.Dulaty Taraz State University undertakes to develop the competitiveness and attractiveness of higher education, increase student mobility, simplify employment processes through the introduction of effective and approved specialist training programs. Another important goal that was set from the very beginning is to ensure the high quality of the learning process. At this stage of the development of the Bologna principles at the university, the task of forming an organizational culture, which will ensure a continuous process of improving the quality of education, is given first priority.

The uniqueness and individuality of the plans for the development of educational programs is characterized by the uniqueness of TarSU, as well as the competitive advantages of the university, which include training in educational programs, the possibility of continuing studies in a master's program. The competitive advantage of the university is the presence of branches of departments on the basis of practice, close cooperation with the practice base, which allows university students to undergo professional practice directly on the basis of production enterprises, which in turn contributes to the maximum employment of graduates of SP and create conditions to meet the needs and interests of the region.

To assess the success of the implementation of the development plan of the educational program, an audit is carried out by external and internal experts, the objects of which are the educational and methodical documentation of specialties and disciplines, and their content meets regulatory requirements. The indicators of the external assessment of educational results are: the results of inspections of commissions of the MES of the Republic of Kazakhstan; SEB reports; university accreditation; EASA results; achievements studying at subject Olympiads and scientific conferences and others.

SP development plans are formed taking into account the availability of financial, informational, labor, material and technical resources and is based on the university's mission in accordance with the principles, goals and objectives.

The management of the study program is carried out in accordance with the following internal regulatory documents:

- Development Program of the M.Kh. Dulaty Taraz State University for 2019-2022;
- Regulation on the design of educational programs (PD 11 / 1.02-2019 No. 81 of 04/10/2019);



- Regulation on the organization of the educational process on credit technology of education at M.Kh.Dulaty TarSU;
- "Regulation on the office registrar";
- "The Regulation on the organization of the educational process on a point-rating system for assessing students' knowledge based on credit technology" and others. - The Regulation on the design of modular educational programs (PD 11 / 1.18-2018 No. 207 of 02/14/2018);
- PD 11 / 1.10-2017 - Regulations on planning, control and reporting in the educational process and other documents of the QMS of the university.
- MS ISO 9001: 2015 - customer orientation and process approach.

In the process of forming SP, students, faculty, and employers participate. This process is carried out by discussing formed competencies, expected results, a catalog of elective disciplines, students forming individual educational trajectories. The result of this work is reflected in the effectiveness of the formation and implementation of the SP. SP development planning is carried out in order to ensure the requirements of interested parties and further improve the educational process, as well as the allocation of resources for its implementation in accordance with the development strategy of the university and the department. Developed SPs are subject to approval by employers. For example: at the proposal of employers of accredited SPs, new elective disciplines were included in the WC (Appendix 1.9 in the report).

The mechanism for students to participate in the formation of accredited SPs is to include senior students, as well as the most active students involved in scientific activities and participants in academic mobility programs, in the working group. (Appendix 1.10 in the report).

The university annually organizes continuing education courses for the heads of structural units of the university in education management programs. For example, during the period 11.05.2018-18.05.2018 a training seminar "Practical aspects of the university's transition to the international standard ISO 9001: 2015" was held in the amount of 32 hours, which examined the practical significance of the transition to the international standard, the structure of the ISO 9001: 2015 standard provides a comparative analysis of sections of ISO 9001: 2008 and ISO 9001: 2015 major changes in terminology, canceled and new requirements in the new version of the standard. The application of a risk-based approach in MS ISO 9001: 2015, the basic principles of the QMS were considered. The seminars were attended by the heads of accredited SP and AS of the department.

According to the results of the survey, the level of accessibility and responsiveness of the university's leadership is "fully satisfied" - 74.8%, "partially satisfied" - 20.6%, "partially unsatisfied" - 1.8%, "not satisfied" - 1.8% and "found it difficult answer" - 0.9% of students.

Teachers highly rate their participation in managerial and strategic decision-making processes. According to the results of the survey, 38.1% of faculty members rated it "very good", 52.6% "good", "relatively bad" and "bad", respectively 7.2% and 1.0%.

### ***The analytical part***

As a result of the analysis of the self-assessment report, presented during the visit, internal documents, conversations with the leadership of the SP and the heads of structural units, it was found that interested parties (students, teachers and employers) are aware of the existence of the University Development Program, policies and goals in the field of quality, internal regulatory documents. SP management has demonstrated the operability of the internal quality management system. The development plans of accredited academic institutions are agreed with the University Development Program.

Reports on the implementation of SP development plans are included in the annual reports of the departments, are considered at meetings of the department, as well as at meetings of the Academic Council of the university. The head of the department with the involvement of faculty is engaged in monitoring the development plan of the SP in order to ensure continuous and continuous improvement.

Students' satisfaction with the quality of the educational program implementation is evaluated according to the results of the survey. So, in the "Learning Conditions" section, students evaluate the work of student self-government bodies at 4.1 points, the material and technical base - 4.2 points, graduates of the SP evaluate 3.4 points for technical equipment and material and technical base at 3.9 points. In the section "Quality of the educational process", the organization of students' research work - students are rated at 3.8 points, graduates at 4.0 points. In the section "Quality of learning outcomes" on the subject "Correspondence of the level of training to modern requirements of the labor market", students rated 4.1 points, graduates - 3.9 points. However, during the visit, members of the EEC did not find confirmation of the existence of feedback between the results of the survey and the formation of a development plan for the SP.

The uniqueness and advantage of each SP presented for accreditation over similar educational programs of other universities has not been sufficiently confirmed; this opinion was confirmed during interviews of SP leaders and when analyzing the submitted documentation.

The EEC also notes the need to analyze the functions of the University employees involved in the management of educational programs, in order to clarify their responsibility in connection with changes to regulatory legal acts in the field of education.

EEC notes the presence of work instruction R 11 / 15.01-2019 - "Risk management". An analysis of the documents submitted (minutes of the meetings of the departments, reports, plans, etc.) confirm the implementation of a number of risk management measures. However, the EEC emphasizes the need for risk updating in connection with changes in legislation and ongoing business process reengineering.

The EEC notes that, within the framework of accredited programs, SP management does not identify, manage and collect information on risks, existing or potential risks within the EP. In the course of the interview and documentary, the SP management did not demonstrate the systematic work carried out to assess the risks of developing educational programs.

Regarding risks, at the university level, general mechanisms and risk management measures are documented. At the SP level, only a list of possible risks and measures to reduce one of the risks are given. The members of the EEC noted the lack of a well-developed risk management system at the SP management level.

Information on the activities of executives and developers of the SP requires updating and clarification in the information resources posted in the public domain on the university website.

On the successful functioning of the internal quality assurance system of the public procurement system, cite the methods for decision-making by the management of the public information system in the internal regulatory acts.

The criteria for managing innovation within the framework of the SP are not disclosed, including the analysis and implementation of innovative proposals.

In the step of raising the level of customer satisfaction with the university, the departments provide for:

- *improving the methodological support of the training system for teachers taking into account trends in the formation of the Republic of Kazakhstan;*
- *development of an internal assessment system for teacher training (updating the base of test tasks);*

- *improving the quality indicator of teacher training.*

The question arises of how these activities are interrelated with accredited SPs.

- No data are given on the passage of training management SP on management study programs.

- The processes of change that have occurred since the last quality assurance procedure are not fully reflected.

According to the results of the survey of teaching staff:

- 6.2% of academic staff assesses "relatively poorly" the possibility of combining teaching with scientific research;

- 7.2% of faculty members assess "relatively poorly" the possibility of combining teaching with practical activities.

According to the results of the survey, the level of accessibility and responsiveness of the university's leadership is "fully satisfied" - 74.8%, "partially satisfied" - 20.6%, "partially unsatisfied" - 1.8%, "not satisfied" - 1.8% and "found it difficult answer" - 0.9% of students.

Teachers highly evaluate their participation in managerial and strategic decision-making processes. According to the results of the survey, 38.1% of faculty members rated it "very good", 52.6% "good", "relatively bad" and "bad", respectively 7.2% and 1.0%.

***Strengths / best practice according to SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry are absent.***

***EEC recommendations for SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry***

- *Update the "Regulation on the design of study programs" by providing a section on the systematic monitoring (indicating the frequency) of the implementation of educational programs, their evaluation, achievement of learning goals, meeting public needs and others. Describe the mechanism aimed at continuous improvement of the development of SP;*

- *Specify the development plan for accredited SPs in order to determine their individuality and uniqueness in accordance with the University Development Program and with changes in regulatory legal acts in the higher education system of the Republic of Kazakhstan;*

- *In order to improve the quality of implemented SPs, develop measures aimed at providing feedback to interested parties at all stages of development of the SP;*

- *Develop an action plan to improve the risk management system, evaluating all the factors affecting the decline in the quality of implementation of SP (features of the development of the region, the qualitative composition of applicants, the possibility of practical training of students, the material and technical base of SP, etc.).*

#### **The conclusions of the EEC on the criteria:**

According to the standard "Management of the educational program" educational programs 6B07117 - "Design and manufacture of engineering products", 7M07115 - "Technological support for machine-building production", 6B07111 / 7M07116 - "Automobiles and automobile facilities", 6B07114 - "Power supply for industrial

enterprises and civil facilities", 7M07114 - Electricity has 15 satisfactory positions and 2 positions that require improvement.

## **6.2. Standard "Information Management and Reporting"**

### **Evidence part**

In order to create conditions for the successful implementation of the process of managing information flows in M.Kh.Dulaty TarSU, systems for collecting, analyzing and managing information based on the use of modern information communication technologies and software have been introduced and are functioning.

The university has a system for collecting, analyzing and managing information based on the use of modern information communication technologies and software: information management within the official website of the university, a folder for exchanging information between structural units "Public \$", academic information management within the AIS "Platonus" , a computer program for managing the educational process with a credit training system of its own design "Sirius", an integrated library information system, programs Partial "1-On Enterprise" and "1-C Personnel records". The main information resource potential of the university is the library.

The forms of internal information management through management documentation are as follows:

- transfer of documents to structural units by the office of the university;
- posting relevant information on special stands;
- using the capabilities of the local network to post information on the TarSU website.

The site provides information on the main activities of the university - the management of educational, scientific and educational processes, provides information on structural units, the rector's blog, there is a university representative office in social networks (Facebook, Instagram, VKontakte, Twitter, Youtube). The university website operates in three languages.

Within the framework of the SP, there is a system of regular reporting, which includes the effectiveness and efficiency of the department and its assessment at the university level. The department prepares semi-annual, annual reports that are analytical in nature, and covering all areas of the department. The structure of reports is determined by the forms approved by the relevant documented procedures. Reporting forms of the department are filled on the basis of reports of teaching staff on indicative plans.

The collection, analysis and management of academic information are carried out by the self-developed AIS "Sirius" and "Platonus". Currently, the AIS has a complete database of students in all levels of training and forms of training. Through the Platonus program, data are automatically transferred to the Unified Management System for Higher Education, where administrative reports are generated by forms (contingent, composition of teaching staff, information about the material and technical base, etc.),

Teachers record information about students' current academic performance and absenteeism weekly in the WEB-TEACHER electronic journal, this information is sent to the dean's office weekly. Exchange of operational information between the structural units of the university is carried out on a local Intranet chat. Each user's incoming and outgoing messages are displayed on his work page.

The mechanism of internal evaluation of the effectiveness and efficiency of the educational program includes: current performance monitoring; intermediate certification; state final certification; internal monitoring; students, faculty of the department; educational programs; quality system and internal audits.

The mechanisms for external evaluation of the effectiveness and efficiency of the

educational program include: licensing of educational activities, specialized accreditation of SPs, state control, monitoring of the education system, ratings, competitions, projects of educational programs. Key performance indicators of the department are reflected in the approved university development strategy and are aimed at assessing the quality of education. In this context, the main attention in the departments is paid to the dynamics of the contingent of students, the level of academic achievement, students' achievements and deductions, satisfaction of students with the implementation of SP and the quality of training, the quality of access to educational resources, employment and career growth of graduates. Information on these issues of the department is analyzed and compared with the strategic indicators of the university and is reflected in the internal reporting documents.

Information protection at the departments is carried out using differentiation, according to functional duties, as well as the use of logins and passwords. Protected information includes: personal data about students and employees of the department, not intended for public disclosure; information about performance results for people without access, etc.

AIS "Platonus" provides data security, including backup archiving, structured storage. In addition, the departments provide storage of all information on paper.

Public meetings with the University rector and Vice-rectors in the areas of activity are held to identify the degree of satisfaction of the faculty, staff, and students with the management system. This allows the University management to make effective management decisions taking into account the opinions of students, employees and staff.

The evaluation process of satisfaction of needs of students involves the use of the methods of collecting primary data – questionnaire ("Satisfaction of students with support of the University", "Satisfaction of student learning outcomes", "student Satisfaction with creation of conditions for personal development and education"), test ("a Teacher by eyes of students" through the AIS "Platonus", the survey and interview. However, there is no evidence that the results obtained were used to correct the detected deficiencies.

The reporting system includes annual reports of structural divisions, reports on research and development, financial statements, reports of teachers.

The library management information system provides access to the databases of the RIEL (Republican interuniversity electronic library of Kazakhstan), the KAZNEB (Kazakhstan national electronic library electronic state national Fund), the English-language sites of electronic resources of the companies THOMSON REUTERS, Springerlink, ELSEVIER.

In order to ensure exchange of information resources of Kazakhstan universities and libraries, access to international databases, improvement of information support of educational process, research activities of the University agreements on the use of ill (interlibrary loan) c libraries Taraz and Kazakhstan the Association of Kazakhstan universities.

To consider individual labor disputes and resolve conflict situations, the University has created a Commission, which necessarily includes a lawyer, a representative of the trade Union Committee, and, if necessary, representatives of other structural divisions of the University. In its activities, the Commission is guided by the Labor code of the Republic of Kazakhstan and internal regulations-P 11/1. 11-2017 " Rules of academic integrity of teachers, employees and students of M.Kh. Dulaty TarSU ", R 15/1. 04-2016 "working with complaints". As a result of the work of the Commission, a proposal is made to the rector of the University, which serves as a basis for making a decision.

According to the legislation of the Republic of Kazakhstan, employees of tarsu, students have provided their consent to the processing of personal data, which was confirmed during conversations with PPS and students and analysis of documents. The

procedure for processing personal data is described in the regulation on storage of personal data of students (R 11/1. 04-2018) and in the regulation on storage of personal data of University employees, ed. No. 2 (R04.01-2014).

### **Analytical part**

In M.Kh.Dulaty TarSU function both traditional processes of information management and transmission, as well as using software products and information systems. The system of collection, analysis and information management M.Kh.Dulaty TarSU is used to ensure the quality of implementation of the SP and is confirmed in the internal regulatory documents developed at the university (Organization Standards, Regulations, Work Instructions). These documents determine the structure and amount of information collected, its reliability and timeliness, allows you to generate analytical reports and make decisions based on facts.

The university identified the responsible persons for the functioning of information systems, software resources, the accuracy of the information used - the press secretary of the university's media service (official website), the director of the Central Scientific Research Institute and the director of the DEMW (AIS "Platonus"), director of the registrar's office (AIS "Sirius").

The University has a Center for New Information Technologies, one of the activities of which is the formation of a single information and educational space of the university's education system. At the same time, it is necessary to continue work on digitalization of the processes of collecting reporting information and its tracking in the context of educational programs.

Analyzing the information provided by the university for compliance with the criteria of the standard "Information Management and Reporting" for accredited SPs, the EEC notes that the university has a monitoring system aimed at identifying the degree of satisfaction of the needs of students and teaching staff. However, evidence is not presented on decisions to improve educational programs based on an analysis of the information provided by students, faculty, and university employees.

The EEC notes that it is necessary to determine the rules for updating the information presented on the university's website and continue to work on the submission and collection of reporting information in order to use it to update accredited educational programs.

According to the results of the survey, the usefulness of the university's website as a whole and of faculties in particular was "fully satisfied" - 76.1% of students, "partially satisfied" - 18.8%. "Very good" and "good" rate 93.9% of the faculty as the level of feedback from management. Full satisfaction of students with the level of accessibility of the dean's office is 81.2%, accessibility and responsiveness of the university leadership - 74.8%, accessibility of academic counseling - 73.9%, accessibility of counseling on personal problems - 71.1%.

***Strengths / best practice according to SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry are absent.***

***The EEC recommendation for SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry:***

- Improve the system of continuous monitoring of stakeholder satisfaction in order to analyze the implementation of the developed plans and evaluate the effectiveness and efficiency of the parties involved in the design and implementation of the SP taking into account the determination of external and internal risks.

- Ensure decision-making on improving educational programs based on the analysis of information provided by students, faculty, and university employees.

***The conclusions of the EEC on the criteria:***

According to the standard "Information Management and Reporting" study programs 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry has 16 satisfactory positions and 1 positions that require improvement.

**6.3. Standard "Development and approval of the educational program"**

***Evidence part***

Based on the regulatory documents of the Republic of Kazakhstan in the field of regulation of higher and postgraduate education, the Taraz State University has developed a standard "Regulation on the design of modular educational programs" (PD 11 / 1.18-2018 No. 207 of 02/14/2018), which regulates the rules for the development and approval of educational programs. The document defines the methodology for developing the study program of the specialty, and also regulates the organization and procedure for conducting all approval procedures.

The design and development of educational programs were carried out in accordance with the regulatory legal acts of the Republic of Kazakhstan in the field of education and on the basis of the state license for educational activities No. 12020167 issued by the Committee for Control in the Field of Education and Science of the Ministry of Education and Science of the Republic of Kazakhstan December 14, 2012. Study programs 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry were developed in accordance with scientific, theoretical and practice-oriented requirements for professional and social competencies.

The implementation of the SP is aimed at building the professional competence of future graduates, corresponding to the qualification framework of the bachelor and master, satisfying the needs of the labor market.

The content, goals and objectives of the elements of the EMCC and EMCD correspond to the goals and objectives of the academic disciplines, the content of the qualification characteristics, as well as the requirements for a graduate in the labor market.

The educational and methodical department of the university and the staff of the departments ensure compliance with the content of academic disciplines and learning outcomes to the level of training (bachelor's, master's degrees). To this end, the content of the educational program is brought into strict conformity with standard curricula, standard curricula, expected learning outcomes, opinions and suggestions of employers, students and professional competencies.

Study programs were developed by working groups, were considered at meetings of departments and the scientific and methodological bureau of the faculty. They were approved by the heads of departments, the chairman of the Faculty of National Medical Sciences, then the Chairman of the Academic Council of the University (protocol No. 11 dated 06/28/2017), and agreed with employers.

Internal regulations governing the development of SP:

1. "Regulation on the design of study programs" (R 11 / 1.02-2019 No. 81 of 04/10/2019).
2. Normative legal acts of the Republic of Kazakhstan on educational activities No. 12020167 issued by the Committee for Control in the Field of Education and Science of the Ministry of Education and Science of the Republic of Kazakhstan on December 14, 2012
3. The development program of M.Kh.Dulaty TarSU for 2019-2022;
4. The regulation on the organization of the educational process on credit technology of education in M.Kh.Dulaty TarSU;
5. "Regulations on the office registrar";
6. Regulation on the organization of the educational process on a point-rating system for assessing students' knowledge based on credit technology;
7. R 11 / 1.10-2017 of the Regulation on planning, control and reporting in the educational process and other documents of the QMS of the university.

At the stage of designing the SP, special departments develop a model of the graduate (approved by the council of the faculty "Oil, Gas and Mechanics" (Minutes No. 6 dated 02.22.2019), based on the general model presented on the university website <http://tarsu.kz/ru/abiturientu.html>. However, in the presented models of the graduate for accredited SPs, the learning outcomes are not shown. It should be understood that the learning outcomes act as a means of expressing the level of competence, are the wording of what students can tell, show, demonstrate after completion niya program (discipline, module) and should be achievable.

Educational-methodical complexes of specialties (EMCC) have been developed, which include modular study programs (MSP), working curricula (WC), catalogs of elective disciplines (QED), which describe the disciplines of the component of choice, indicating a brief content, pre- and post requisites, educational methodological complexes of disciplines (syllabuses) (EMCD).

The production practice for accredited SPs is carried out in accordance with the documents "Rules for organizing and conducting professional practice and rules for determining an organization as a base of practice" (Approved by order of the Ministry of Education and Science of the Republic of Kazakhstan dated January 29, 2016 No. 107), as well as the "Regulation on Professional Practice", which describes all processes and criteria for passing various types of practices.

The assessment of the SP was carried out by both external and internal experts. Atameken NPP, a group of employers and other professional communities acted as external experts, and the most experienced teachers, excellent students and activists, and heads of university structural units acted as internal experts.

The indicators of the external evaluation of the educational programs were the results of the inspections of the Ministry of Education and Science of the Republic of Kazakhstan, the SAC reports, the certification of the university, the results of the EASA, the achievements of the students at different conferences and other competitions.

The system existing at the university is oriented on engaging in evaluating the quality of general education of external experts in the person of SEB chairmen, reviewers of graduation work, managers of professional practitioners, and work managers. In the process of conducting production practice, the quality of the educational program was



evaluated based on the position of students mastering theoretical knowledge and skills in their application in the production environment.

The main evaluation criteria are the reviews of the managers of the base of practice and the students studying the results of the practice, as well as the reviews of external reviewers on the graduation work. Over the past years, the university has received positive feedback on professional activities of graduates in enterprises and organizations of various property forms. The results of the evaluation of the SP were discussed at the meetings of the Council of the Faculty and the Academic Council of the University, in which decisions were made on measures to ensure the quality of education.

Employers act as external experts evaluating the content of the SP. For accredited students at the Department of Mechanics and Mechanical Engineering, the study program of the accredited specialty was developed with the participation of employers (Tazhyrebe Dauren LLP) and students, as well as teaching staff, were introduced into the educational process. For example, the director of Təzhiribe Dóeuren LLP, Eselbaev A.T., a 3-year student of specialty 5B071200 - Mechanical Engineering Serikbay K. and a 4-year student Seydualiev T. were co-authors of a modular educational program developed at the Department of Mechanics and Engineering. At the Department of Power Industry, the adviser to the general director of Zhambyl Electric Networks LLP S.Zh. Elamanov, Kartaygan Ayan, Manauov Zh. students V14EE-1,3 .; were involved in the development of the educational program on the part of employers; at the Department of Transport Engineering and Technology, the study program of the accredited specialty was developed with the participation of employers (Automotive Engineering of the Department of Internal Affairs of Zhambyl Oblast) and students, as well as research and teaching staff were introduced into the educational process. For example, the director of the Automotive Engineering Department of the Department of Internal Affairs of Zhambyl Oblast, Umurzakov R.R., 3-year students B. B. Jienbaev, K. B. Tynyshbekov and D. Zinoll, 2-year student. were co-authors of a modular educational program developed at the Department of Transport Engineering and Technology.

According to the Master's program, instead of the discipline "Design and production of blanks", the QED includes the discipline "Methods of metal processing in mechanical engineering" in order to ensure professional competencies in the field of metal processing used in machine-building enterprises.

In addition, SEB Chairs, graduate reviewers, professional practitioners, employers act as external experts.

Conclusions of external experts on SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry is available.

The procedure for organizing and passing practice is described in the university documents "Academic Rules for the Organization of the Educational Process" and "Regulation on Professional Practice (PD 11 / 1-3.03-2016).

In the implementation of the SP of this cluster, the participation of the manufacturing sector and employers is practiced in the form of creating branches and practice bases. In this direction, at the departments "Mechanics and Mechanical Engineering", "Electric Power Engineering" and "Transport Engineering and Technologies", branches of the department were created and are functioning at the enterprises of Zapchast JSC, Zhambyl Electric Networks LLP, and TarazPassTrans LLP. In addition, students undergo practical training on the basis of enterprises such as: Kazphosphate LLP, Metallokonstruktsiya LLP, SAT Energy LLP, TarazPassTrans LLP, Tazhiribe Dauren LLP, Tarazkommash LLP, Automotive Engineering DVD Zhambyl region, KEGOC, etc.

Students practice internships at enterprises with which the institution of higher education has concluded contracts for professional practice -- Zapchast JSC (04/11/2019), Tarazkommash LLP (04/31/16), Tazhyribe-Dauren LLP (01.04.2016 g.), SatEnergy LLP (05/14/2015).

To organize scientific internships for undergraduates, the university cooperates with M. Auezova South Kazakhstan State University.

A protocol of intent on scientific and pedagogical cooperation was concluded with Ariel University in Samaria (Israel).

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

- By informing the requirements in order to successfully complete this specialty, "fully satisfied" - 80.3%, "partially satisfied" - 15.6%, "not satisfied" - 1.4%;

- By informing about courses, educational programs, and academic degrees "fully and partially satisfied" - 95.9%, "not satisfied" - 1.8%.

### **Analytical part**

As a result of studying the standard "Development and approval of an educational program", the commission came to the conclusion that the content and logic of constructing educational programs were disclosed in accredited areas, and the process of training students in the framework of the educational program was described.

Curricula provide a logical sequence of study of disciplines, based on continuity, the rational distribution of disciplines throughout the semesters from the position of uniformity of student work; active use of personnel and material and technical potential of all departments.

The participation of stakeholders in the development of educational programs is demonstrated, a graduate model is developed, the structure of the educational program based on the modular organization of educational content is disclosed. Various types of activities are described, the content of which contributes to the formation of professional competence of students. The representativeness of attracting employers to participate in the design and implementation of SP is substantiated.

The members of the EEC note that accredited educational programs are provided with the necessary teaching materials (WC, QED, syllabuses, teaching materials) that meet the specifics of accredited SPs. A set of QED disciplines, the choice of enterprises for practical training contributes to the formation of professional competencies of students.

Students take part in student scientific conferences organized by both the university and other universities. In the period from 2016 to 2019, the winners of the Republican scientific and practical conferences and competitions were Tanabekova A.M., Khamitov N.R., Zhientaev H.D., Sveid H.A. (Diploma of the III degree), Gerdt A. (Diploma of the III degree), Pernebek A., Sobitov K. were awarded with Diplomas of the II degree. Bakirov B., Kospakova K., Balkybek A., Muhamed A., Myrzabaev F., Tolonbek E. at the Republican Scientific and Practical Conference "JAS DARYN" in 2018 and 2019 was awarded Diplomas of the I degree, and at the student's scientific and practical conference TarSU in 2019 was awarded the Diploma of the III degree and it was awarded the qualification of "Student Researcher".

The department "Mechanics and Engineering" operates a scientific circle "Engineering", and the department "Power" the scientific circle "Energetics." The department "Mechanics and Engineering" has one state budget theme based on the thematic plans of M.Kh. Dulaty TarSU, but due to the lack of funded research, students are not able to fully realize their scientific potential. The Commission recommended that students be more widely involved in the research work of the department within the framework of their diploma projects and master's theses.

The presence of branches of the department on the basis of the enterprise can help prepare students for professional certification, but at the moment this work has not been carried out.

The department developed a graduate model for accredited SP. At the same time, in connection with the formation of the national register of educational programs, it is necessary to update the results of training at the levels of higher education.

The EEC also notes that under the accredited SP there are no joint educational programs implemented with foreign universities.

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

- the speed of response to feedback from teachers regarding the educational process is "fully satisfied" - 75.7%; partially satisfied - 20.6%.

- Satisfied with the quality of teaching "fully" - 77.1%, "partially satisfied" - 18.8%, "partially unsatisfied" - 2.3%.

To the question to the teachers, how much does the content of the educational program satisfy your needs? The positive answer "very good" and "good" was presented by 98.0% of respondents.

***Strengths / best practice according to SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry are absent.***

***The EEC recommendation for SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry:***

- Update the models of graduates of SP with a focus on learning outcomes developed in accordance with Dublin descriptors of the first level (bachelor's degree) and second level (master's degree) of higher education;

- Develop an action plan to prepare students for professional certification;

- Develop activities for the organization of work on concluding cooperation agreements with Kazakhstan and foreign universities on the development and implementation of joint educational programs in order to harmonize them and for the effective development of academic mobility;

- To prepare the topic of research work in the department's areas of activity for submitting applications for participation in the competition for targeted funding for scientific, scientific and technical programs.

***The conclusions of the EEC on the criteria:***

According to the standard "Development and approval of the study program" study programs 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry has 10 satisfactory positions and 2 positions that require improvement.

#### **6.4 Standard “Continuous monitoring and periodic evaluation of study programs”**

##### ***Evidence part***

In order to improve the SP, ensure the achievement of the goal of the SP and meet the needs of students and society, the university regularly monitors and periodically evaluates it. Ensuring and constantly improving the quality of educational programs is the most important task of the departments, faculty and the entire university as a whole.

Activities aimed at achieving the main objectives of the educational program, the formation of the planned learning outcomes and continuous improvement of the educational program are carried out on the basis of regular monitoring and periodic evaluation of educational programs.

To determine the level of satisfaction of internal consumers, the Department for Monitoring the Quality of Education every academic period organizes and conducts a survey of students, teachers and employees of the university. Questionnaires used for the survey: “Teacher through the eyes of a student”, “Quality of the educational process”, “Satisfaction with the organization of practical training”, “Clean session”. All incoming information is carefully analyzed, and the university management takes appropriate measures.

The university’s leadership, together with the department, creates conditions for employers with the aim of attracting them to the development of educational programs, harmonizing QEDs, guiding professional practices, teaching staff development, and also reviewing graduation works and projects.

Analysis and monitoring of the use of innovative teaching methods takes place at the meetings of the department and during the discussion of classes attended by teachers. The teaching staff of the department in the classes widely uses a wide variety of traditional, innovative technologies.

During the entire period of study, the university monitors students' knowledge in the form of current and intermediate certification, final control, and protection of practice reports. Efficiency and reliability of information for managing the quality of educational activities is ensured through the use of the PLATONUS information system, which contains all the information on the educational activities of students.

The processing of accredited SPs is carried out in connection with changes in regulatory documents of the Ministry of Education and Science of the Republic of Kazakhstan, the introduction of new training courses and elective courses. Updating the SP is carried out in accordance with the requests of employers, which is reflected in the coordination of the catalog of elective disciplines for the corresponding academic year.

According to the developers of the SP, informing the public and all interested parties about possible changes in the SP is carried out through the TarSU website ([www.tarsu.kz](http://www.tarsu.kz)) through the advisers and faculty of the department, the information system AIS "Platonus v3.0", the public folder "Public", through the corporate Email and WhatsApp. However, the EEC notes that when analyzing the information presented on the university’s website, a number of positions (graduate model, learning outcomes, and the effectiveness of student assessment procedures) were not reflected on the website.

To meet the requirements of the labor market, employers, representatives of business structures, specialists with extensive experience and heads of enterprises and organizations of Zhambyl region participate in the formation of QED. Departments of the faculty of "Oil, Gas and Mechanics" organize extended meetings, round tables, conclude cooperation agreements for all types of practices. So, in the academic year 2017/2018, a round table was held on the topic “Educated Generation - Qualified Specialist” with the invitation of employers Zhambyl Electric Networks LLP, Energo Tech Prof LLP, Tazhiribe-Dauren LLP, TarazPassTrans LLP (Minutes No. 3 dated March 16, 2018), and in the

academic year 2018/2019 the round table was “My profession is my pride” with the invitation of specialists from Zapchast JSC, Taraz branch of the Union of Drivers of Kazakhstan, Zhambyl Zharyk Saud LLP (Minutes No. 4, dated April 10, 2019).

The Center for Monitoring the Quality of Education conducts sociological research by questioning the heads of enterprises on the topic “Opinion of employers on the quality of training of a graduate of M.Kh. Dulaty TarSU. Employers highly appreciate the level of training of graduates. At the same time, they draw attention to the need for in-depth fundamental training and an increase in special subjects in junior courses. Employers, as wishes, suggest increasing the duration of the practice, introducing dual training into the educational process, and implementing real diploma projects with their subsequent implementation in production.

In this regard, the departments annually revise the topic of dissertations, which provides for the solution of urgent issues of the state and development prospects of the Zhambyl region and the city of Taraz.

### **Analytical part**

EEC notes that the university provides a review of the content and structure of educational programs with the participation of employers. This was also confirmed during visits to special departments “Mechanics and Mechanical Engineering”, “Transport Engineering and Technologies”, “Electric Power Engineering” and analysis of the submitted documents.

During the regular monitoring and periodic assessment of the SP, the SP management takes into account changes in the labor market, the requirements of employers and the social request of the company.

The members of the EEC also note that during regular monitoring and periodic evaluation of accredited by the university, the workload, academic performance and graduation of students are assessed, which is confirmed by the content of AIS "PLATONUS".

To obtain an objective assessment in the learning process, teaching staff uses various methods for monitoring the knowledge of educators.

The university has created and operates academic support services for students: the registrar's office (RO), the adviser service. Systematic work is being carried out with regard to creating the most favorable conditions for the quality provision of educational services, social support for students, and the necessary conditions are being created for their personal development and upbringing.

At the same time, the EEC notes that it is necessary to ensure constant and timely informing students, faculty, employers through various communication channels of all changes made to the SP. Ensure accessibility to all materials related to the development of SP.

***Strengths / best practice according to SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry are absent.***

***The EEC recommendation for SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry:***

- Develop and implement a mechanism to improve the awareness of all interested parties about any changes made to educational programs.

***The conclusions of the EEC on the criteria:***

According to the standard "Continuous monitoring and periodic evaluation of study programs" study programs 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry 10 criteria are disclosed, of which: 10 have a satisfactory position.

**6.5. Standard "Student-centered Learning, Teaching and Assessment"**

**Evidence part**

The implementation of student-centered learning in a university is carried out by forming an independent position among students in the learning process. Students receive information about the possibilities of forming an individual educational trajectory with the advisory support of an adviser. The academic disciplines included in the structure of the study program are provided by the teaching materials, methodological instructions for the SIW, OH, and laboratory work.

The design of accredited educational programs is carried out in such a way that provides equal opportunities to all categories of students in the formation of an individual educational trajectory. Features of students are determined upon admission to the university. To meet the needs of students in obtaining relevant qualifications for the undergraduate program, training is carried out in the state, Russian and English languages.

To ensure the harmonious development of students, taking into account their characteristics, the needs of students are taken into account when implementing student-centered SPs, which affects the requirements for teaching.

Teachers of the department use various teaching methods and knowledge control in the educational process:

- video films, slides at lectures and practical exercises (all teachers);
- control cards for the operational control of students' knowledge during weekly certification (all teachers);
- creating a practical situation in practical classes (associate professors B. Koyaydarov, P. Seitpanov);
- conducting classes in a mixed format - the lecture materials are fixed by the solution of practical problems;
- conducting educational research in practical classes, for example, in the discipline "Fundamentals of the design of devices", various devices, mechanisms and devices are studied (associate professor B. Koyaydarov);
- Training students of technical creativity during lectures in the form of a question - an answer, in practical classes - creating a problematic situation; solution of technical problems (associate professors B. Koyaydarov, P. Seitpanov).

Also, when conducting practical classes, teaching staff use controlling and training technologies, electronic textbooks.

All normative and methodological and educational-methodical documentation is compiled in state, Russian, and also for groups where training is conducted in English - in English: QED, ISP, WC, syllabuses and EMCD components in accordance with the requirements of R 11 / 1.03- 2018 "Regulation on the development of the educational and

methodological complex of specialty and discipline." The necessary academic information is available on the university's information and educational portal [www.portal.tarsu.kz](http://www.portal.tarsu.kz). All students have an individual login and password and the possibility of unhindered and permanent access to the student's portal and the university's website.

Since 2008, a university has been implementing a project to introduce new teaching technologies. In accordance with this project, each teacher must conduct an open lesson or master class, according to the "Schedule of open classes" using modern teaching technologies. The results of such classes are discussed at the meetings of the department. For example, at the Department of Mechanics and Mechanical Engineering in the academic year 2016/2017, 14 open classes were held, in the academic year 2017/2018 - 11, in the academic year 2018/2019 - 12. At the Department of Transport Engineering and Technology in 2016-2017 In the academic year 13 open classes were held, in the 2017-2018 academic year - 14 open classes, in the 2018-2019 academic year - 16 open classes. In the department of "Power industry" in the 2016-2017 academic year, 20 open classes were held, in the 2017-2018 academic year - 19 open classes, in the 2018-2019 academic year - 19 open classes.

Since 2009, the university has traditionally held an annual competition among faculty to develop the best multimedia product. The last four years the competition has the status of interuniversity. Winners are awarded with diplomas and a cash prize and well-deserved recognition. According to the results of the 2016-2019 academic years in the nomination "The best open lesson in English", senior teachers of the department "Power Industry" Mynbaeva Z.T., Minazhova S. won prizes. In the academic year 2018-2019, Z.T. Mynbaeva took 3rd place, S. Minazhova took 1st place in the 2016-2017 academic year, B. Zhamanbaev, senior lecturer at the Department of Transport Engineering and Technologies, took first place in the 2017-2018 academic year nomination "Best multimedia product."

To educate students using distance technology, teaching staff developed content on all disciplines of SP specialties 6B07117 - "Design and manufacture of engineering products", 6B07111 - "Automobiles and automobile facilities", and 6B07114 - "Power supply of industrial enterprises and civilian facilities".

In the educational process, electronic textbooks developed by the faculty of the department are used. In recent years, teachers of the department "Mechanics and Mechanical Engineering" have developed electronic textbooks and teaching aids that are used in the educational process: Kim F.I., Sakhybaev R.T., Nusipali R.K., Abildaev A.A., Yusupova L. H., Abildaeva N.D. "Computer graphics"(2016), Kim F.I., Nusipali R.K. "Workshop on 3D - modeling in the environment of AutoCAD", 23.6 Mb, Karymsakov N.S. and others "Machines and apparatus for the manufacture of leather products" (2016), Seitpanov PK, Nusipuli R.K. "Electronic textbook for performing calculation and graphic works on the discipline of Technical mechanics» (2017), Zhunisbekov S.S., Dzhakiyaev D.K. " Fundamentals of the theory of elasticity, plasticity, shear " (2018), Zhunisbekov S.S., Malibekov A.K., Urkimbaev M.F. "Strength of materials" (2018), Zhunisbekov S., Urkimbaev M.F., Zhashen S. "Details of machines" (2018). Associate Professor of the Department "Power industry" Seraliev T.A. developed an electronic textbook: "Basics of Electronics and Radio Electronics" (2016).

Assessment of knowledge, skills and professional competencies of students studying on credit technology of education is carried out on a 100-point scale with the conversion of the final result into a letter and digital equivalent. For the period of the examination session at the university, an appeal commission is created by the order of the rector.

All types of independent work of students (term projects, thesis, master's thesis) are tested for plagiarism.

The university has developed a procedure for the response of the SP management to students' complaints, which is described in the work instruction R 15 / 1.04-2016 "Work with complaints".

When visiting the practice bases, practice managers from the enterprise noted a sufficient theoretical level of preparedness of students, their interest in obtaining additional practical knowledge.

During an interview with students, they expressed the opinion that SP management should focus on conducting practice-oriented classes, introducing a dual form of training.

Gifted students and students to meet their needs in-depth study of a number of disciplines are involved in scientific activities.

In order to identify the needs of various categories of students, we use data from a regularly conducted analysis of success rates by way of courses, groups, faculty; information is used on the nature of student appeals to the dean's office, registrar's office, and other structural divisions.

The responsibility for ensuring and systematic development, implementation and effectiveness of innovative teaching methods lies with the department. Monitoring the effectiveness and efficiency of the application of innovations and the use of active teaching methods is carried out during the midterm, final and current control of students' knowledge.

To demonstrate a high degree of trust in students, to promote the principles of integrity, a unique project "Adaldyk Alany / Audience of Honesty" is being implemented at the university. Within the framework of the Year of Youth, it was first organized and received widespread encouragement from both students and the public, "Quality Day", held as part of the project R 11 / 13.02-2019 "Regulation" Adaldykalagy "/ " Audience of honesty".

### ***Analytical part***

Analyzing the criteria of the standard "Student-centered learning, teaching and performance assessment", it was found that the teaching staff uses both traditional and innovative teaching methods when conducting classes. This was confirmed during visits to classes conducted by teachers of the department during the work of the EEC.

There are feedback systems on the use of various teaching methods and assessment of learning outcomes. The university ensures the consistency, transparency and objectivity of the mechanism for assessing learning outcomes for each academic degree, as well as an appeal.

Assessment of knowledge, skills and professional competences of students studying on credit technology of education is carried out on a 100-point scale with the conversion of the final result into a letter and digital equivalent.

Evaluation criteria designed to assess students' knowledge of undergraduate programs take into account the timely and independent implementation of all types of tasks, the ability to correctly formulate a problem, find answers.

The current control of knowledge of undergraduates is represented by more complex forms and methods that require students to be able to analyze, identify common features of compared objects, find differences, and draw up analytical reviews.

The teaching staff of the department conducts local research in the field of teaching methods. So associate professor B.A. Koyaydarov plans to use a simulator training method. This project is under development.

Thus, members of the EEC note that in the educational process their own studies of the teaching staff of the special department in the field of teaching academic disciplines of accredited EPs are not used enough.



The questionnaire conducted during the visit of the EEC IAAR showed that students express full and partial satisfaction:

- teaching methods in general - 95.4%;
- the level of quality of teaching - 95.9%;
- fair examinations and certification - 93.1%;
- conducted tests and exams - 95.9%.

***Strengths / best practice according to SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry are absent.***

***The EEC recommendation for SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry:***

*- To prepare a plan for the development and implementation in the educational process of their own research of teaching staff in the field of teaching methods of academic disciplines with subsequent implementation.*

***The conclusions of the EEC on the criteria:***

According to the standard "Student-centered training, teaching and performance assessment" for study programs 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry 10 criteria are disclosed, of which: 10 have a satisfactory position.

**6.6. Standard "Students"**

***Evidence part***

SP management demonstrates the policy of forming a contingent of students of SP from receipt to release and ensures the transparency of its procedures. For the formation of the contingent of students, the teaching staff of the department carries out career guidance in secondary schools, in organizations of secondary specialized education of the city of Taraz.

The formation of the student body is carried out at the expense of state educational grants and by paying for tuition at the expense of citizens and other sources.

Applicants to the university for undergraduate education must have knowledge in the volume of a secondary school, confirmed by the required number of points in a single national testing (UNT).

In the university-level events, the teaching staff of the department acquaints graduates of supervised educational organizations with SP and entrance requirements, with the conditions of study, accommodation, further employment. This information is available on the university website <http://tarsu.kz/ru/abiturientu.html>.

According to the plan of career guidance, assigned to the departments: "Mechanics and Engineering" secondary school No. 34 and "Taraz Humanitarian Technical College"; "Transport equipment and technologies", school №37 and Taraz railway college; "Power" - a secondary school No. 21.

Students are admitted to the University on the basis of the Model Rules for admission to educational institutions that implement educational programs of higher education (approved by the Government of the Republic of Kazakhstan dated January 19, 2012 No. 111, amendments and additions were made by the Government of the Republic of Kazakhstan dated June 08, 2018 No. 334 ) and the Rules for awarding an educational grant to pay for higher education (approved by the Decree of the Government of the Republic of Kazakhstan dated January 23, 2008 N 58).

For admission of documents, conducting comprehensive testing and forming a contingent of students of all forms of training at the university, a selection committee operates. All regulatory legal acts on the admission of applicants to the number of students are available on the university website and information boards of the admissions committee. In addition, the OP carries out career guidance on pages on popular social networks Instagram, Facebook, Vkontakte, YouTube, where information is posted as they become available.

The relative constancy of the contingent of students in accredited SP is observed:

According to SP 6B07117 Designing and manufacturing of engineering products:

2016/2017 academic year - 70 people, accepted for the first year - 15 people;

2017/2018 academic year - 54 people accepted for the first year - 12 people;

2018/2019 academic year - 57 people accepted for the first year - 19 people;

According to SP 7M07115 Technological support of machine-building production:

2016/2017 academic year - accepted for the first year - 3 people;

2017/2018 academic year - accepted for the first year - 4 people;

2018/2019 academic year - accepted for the first year - 4 people.

According to SP 6B07111 Automobiles and automobile industry:

2016/2017 academic year - 100 people; accepted for the first year - 4 people;

2017/2018 academic year - 94 people accepted for the first year - 20 people;

2018/2019 academic year - 88 people accepted for the first year - 46 people;

According to SP 7M07116 Automobiles and automobile industry:

2016/2017 academic year - accepted for the first year - 8 people;

2017/2018 academic year - accepted for the first year - 12 people;

2018/2019 academic year - accepted for the first year - 1 person.

According to SP 6B07114 Power supply of industrial enterprises and civil objects:

2016/2017 academic year - 134 people, accepted for the first year - 17 people;

2017/2018 academic year - 144 people accepted for the first year - 25 people;

2018/2019 academic year - 142 people accepted for the first year - 35 people;

According to SP 7M07114 - "Power industry"

2016/2017 academic year - accepted for the first year - 8 people;

2017/2018 academic year - accepted for the first year - 12 people;

2018/2019 academic year - accepted for the first year - 9 people.

A special course "Freshman Seminar" has been introduced into the practice of adaptation for those who have entered the 1st year of undergraduate programs. For each student in the first academic week, a "Guidebook" is distributed free of charge. Using the principle of an interdisciplinary approach in building the course program, students of different specialties are combined in one academic stream, and as a result of performing both individual and group tasks, they get acquainted with the features of the chosen professions. Since 2019, a new course has been introduced into the curriculum -

“Harmonization of educational activities and students” (5 credits), which addresses issues on the basics of law, an anti-corruption culture, and international harmony.

In addition, all first-year students on curatorial hours are surely introduced to the regulations of the educational process, the Charter of the University, the internal rules, the Code of Honor of students, and the rules of academic honesty.

Students, with the help of an adviser, form individual learning paths presented in the individual curriculum, on the basis of which a working curriculum for each academic year is formed.

A prerequisite for transferring a student from one course to another is the achievement of a student’s average grade point score (GPA) not lower than the established transfer point. The university has established GPA requirements for transferring from a course to a course in undergraduate studies: for a 2nd course - 1.5; for 3 course - 1.8; on the 4th course - 2.1; Master’s program: from 1 to 2 courses - 2.2.

The recognition of the results of studies at the university is carried out jointly by deans, the Bologna Process and Academic Mobility Department and the registrar's office based on conversion factors, defined as the ratio of the laboriousness of the loan of the Republic of Kazakhstan to the laboriousness of the ECTS loan.

The University actively collaborates on the recognition of qualifications with the Center for the Bologna Process and academic mobility of the Ministry of Education and Science of the Republic of Kazakhstan, which is part of the ENIC-NARIC information network.

The academic mobility of students is regulated by internal regulatory documents:

- R 12 / 7.01-2018 "Regulation on the organization of academic mobility";
- R 11 / 1.19-2018 “Academic rules for the organization of the educational process at M.Kh. Dulaty Taraz State University”;
- R 11 / 13.04-2017 “Regulations on the Policy of Academic Recognition at M.Kh. Dulaty Taraz State University”;
- “A working instruction for students on academic mobility and joint study programs using distance learning technologies.”

The main sources of financing external credit mobility programs are funds of the Ministry of Education and Science of the Republic of Kazakhstan, funds of the ERASMUS + program, and own funds of the university.

As part of the implementation of the program of academic mobility, students of SP 6B07117 - “Designing and manufacturing of engineering products” were trained at the University of Lublin (Poland) (Kim M.I. from September 15, 2017 to February 10, 2018), at the University of Alexandras Stulginskis (Lithuania) ( Kim M.I., Tleubeck R. from September 15, 2016 to February 10, 2017), at the University of Castilla-La Mancha (Spain) (Madiyarbek B. from January 18, 2016 to 07.07.2016).

Graduate students SP 7M07115 - "Technological support of machine-building production " M. Auezova SKSU Pazylkhan N.B., Kemesh E.K., Zhumaliev B.B., in 2018, 2019 underwent a scientific internship at the Department of Mechanics and Mechanical Engineering, M.Kh. Dulaty TarSU under the program of internal mobility.

In the period 2014-2019 Under the external academic mobility program, 1 student and 1 undergraduate passed in one semester at Kaunas University of Technology (Lithuania).

After the arrival and recognition of all disbursed loans, in the summer semester, students, without paying for tuition, eliminated the difference in the curriculum and mastered the competencies laid down in the university's SP.

To improve the quality of educational services provided, long-term plans for the development of educational programs have been developed, which include measures to improve and expand international cooperation.

Professor Katz V.Ya. was invited to the university to advise undergraduates, give lectures, conduct master classes from 4.11.2019 to 4.12.2019. (Ariel University in Samaria, Israel).

The SP management created the conditions for providing students with quality practice, the university entered into agreements with enterprises that meet the profile of the SP for all types of practice.

All types of practices are planned and conducted in accordance with the academic calendar of the university and study plans. The department has developed working programs and methodological instructions that contain a detailed list of tasks, requirements for maintaining the practice, keeping the practice, types of reporting documents, sample reporting, etc. The direction of the students studying at all kinds of practices is formed by the order of the rector of M.Kh. Dulaty TarSU with indication of the terms of passage of practice, base of practice and guides of practice.

Coordination of work to promote employment and career development of graduates is entrusted to the structural unit of the university - the Center for Career and Professional Development.

According to the Roadmap for Assisting Graduates in Employment at the University, meetings are annually held with the heads of organizations with a profile, with representatives of the Employment Center, Job Fairs, round tables, master classes, etc.

The teaching staff of the department constantly monitors the employment of graduates by collecting information about their professional employment. As a result of calculating the adjusted employment indicators, the percentage of employment of graduates in 2017 amounted to 67%, in 2018 - 75%, in 2019 - 80%. The university created a public organization "Alumni Association".

Indicators on the employment of graduates of the SP show the demand for young professionals. The members of the EEC note that the bulk of graduates get a job on the profile of the SP.

After completing the training, the graduate, together with a diploma confirming the qualification, is given a diploma supplement (transcript), which contains grades for each academic discipline in a point-rating letter system with an indication of its volume in credits. The issuance of a state-issued diploma with the application is carried out in accordance with the order of the university rector on the issue. All 2019 graduates received Diploma Supplement European Diploma Supplements.

To organize scientific work with students in the departments of accredited students, the scientific circle "Machine builder" "Tulpar" and "Power Engineer" is functioning. The work of the circle is aimed at deepening the theoretical knowledge and skills of scientific research of students in the studied disciplines, expanding their scientific horizons, developing skills in the technique of writing scientific papers. At the same time, the absence of funded grant and contractual works at a special department does not allow students to really participate in the implementation of scientific and experimental research on applied topics.

The student community is represented on the Academic Council of the University, the Commission on the allocation of places in dormitories, the Council on the prevention of crime and the fight against corruption. The Committee on Youth Affairs continuously employs student deanships and youth organizations: Student Councils in hostels, Student Trade Union Committee, MK Zhas Otan, IDC Arena of Free Thoughts, SMO Dostyk, Youth Club Femida, Alliance of Students of Kazakhstan ", Youth organization " Street workout ", League of KVN " Zhaidarman ", youth club " Bal-Darikha ", youth club " Mugilik el murasy ", team of the organization " Enactus TarSU ", labor groups " Zhasyl El ".

Students are encouraged to self-education and the development of extracurricular activities by applying discounts on education in accordance with the internal university

document R 11 / 1.08-2019 - "Regulations on the provision of discounts on payment for students at M.Kh. Dulaty Taraz State University "

To identify and support gifted youth at the University, the Center for Creativity Development at the beginning of each academic year conducts campaigning among students, their involvement in social and cultural life of the university.

Students take an active part in the work of the modeling studio, dance ensembles of the choreographic studio - "Asylay", "Gauhartas", "Arnau", the national dance "Kalinka", "Turan", "Asadal", dance groups, cheerleading and "Tarsu.kz", vocal the studio of the duet "Zhasnur", the trio "Tarlan", the vocal and instrumental ensembles "Univer", the studio of folk instruments - the ensemble "Altai Sazy"

### **Analytical part**

During the analysis of the contingent of students, the commission observes a tendency towards its increase. The current policy for the formation of the contingent in the university complies with the legislation of the Republic of Kazakhstan. To popularize accredited programs, the university carries out career guidance, attracts graduates (open day, round tables). SP management conducts special adaptation and support programs for incoming and foreign students.

Analyzing the "Learning" standard, the members of the EEC came to the conclusion that the university demonstrated the policy of forming the contingent of students and the transparency of its procedures.

The SP leadership demonstrated the implementation of special adaptation and support programs for foreign students, actively encouraging students to self-education.

The university collaborates with other educational organizations on academic mobility, provides training places for practitioners, and promotes the employment of graduates. At the same time, the EEC notes that it is necessary to expand cooperation with other educational organizations that implement similar educational programs in order to provide students with opportunities to participate in academic mobility programs.

The university provides graduates of SP with documents confirming their qualifications; regular monitoring of the employment and professional activities of graduates of SP is carried out. A public association "Alumni Association" operates in the university, which operates on the basis of the Charter.

During interviews with the heads of structural units of students, EEC members were convinced of the availability of a mechanism to support gifted students.

According to the results of the survey, students express full satisfaction:

- The availability of academic counseling - 73.9%;
- Availability of health services - 62.8%;
- Existing training resources - 78.4%;
- The overall quality of the curriculum is 73.9%;
- The relationship between student and teacher is 82.6%.

***Strengths / best practice according to SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply:***

*A program has been developed and is being implemented that provides adaptation and support for all categories of students who entered the first year.*

- The presence of a mechanism to support gifted students.*

***The EEC recommendation for SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles***

**and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry:**

- To expand the practice of implementing internal and external mobility of students by concluding cooperation agreements with Kazakh and foreign universities that implement similar educational programs.

***The conclusions of the EEC on the criteria:***

According to the standard "Students" for SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry: 12 criteria are disclosed, of which: 2 have a strong position, 10 - satisfactory.

**6.7. Standard "Academic staff"**

**Evidence part**

The personnel policy of the university is a set of works arising from the mission and strategy with the aim of forming and efficiently using motivated and highly productive personnel capable of responding adequately to the impact of the external and internal environment. It combines the following stages: the formation of requirements for the personnel contingent, search and selection, hiring, attracting new personnel to the team and getting to know the corporate culture, tracking and evaluating activities, stimulating and organizing personal and professional growth, promotion, promotion, imposition of disciplinary sanctions, suspension from work in case of discrepancy with qualification requirements (R 4.01-2016 Rules of the internal labor schedule of M.Kh. Dulaty TarSU dated 01/19/2016, STU 08-2016 "Personnel Management"). The staff of faculty staff is equipped in accordance with the laws of the Republic of Kazakhstan and the rules for competitive placement of faculty staff and scientific workers of higher educational institutions.

The strategic resource of the university is the faculty. At the departments of "Mechanics and Mechanical Engineering", "Transport Engineering and Technologies", "Electric Power Engineering" qualified teaching staff have been formed to ensure the training of specialists in accordance with the requirements of the State Educational Standard and M.Kh. Dulaty TarSU Development Program for 2019-2022.

Management and regulation of the employment of teaching staff is carried out on the basis of a contract-competitive form, the procedure for which is governed by the Regulation on competitive elections of the RFP, job descriptions. They are approved by the rector of the university.

The teaching staff of the graduating department in the SP 6B07117- "Design and Production of Engineering Products", 7M07115- "Technological Support for Engineering Production" consists of 13 people (11 of them are full-time), including: doctors of sciences, professors - 2, candidates of sciences, associate professors - 5, masters of mechanical engineering 5, senior lecturer - 1. Including: corresponding member of the International Academy of Sciences - 1 (Zhunisbekov S.S.), member of the Republican Intersectoral Academy of Sciences - 1 (A. Malibekov). Doctor of Technical Sciences, Professor Zhunisbekov S.S. is the "Best University Teacher" in 2019.

The degree of AS is 53.84%. The average age of full-time teachers is 48 years. The code of the specialty, academic degree and academic rank correspond to the taught disciplines.

The teaching staff of the graduating department of SP 6V07111 - "Automobiles and Automotive Economy" and 7M07116 - "Automobiles and Automotive Economy" consists of 6 candidates of sciences, 9 masters. For the 2018-2019 academic year, the total number of faculty was 16 people, of which 16 full-time teachers, which corresponds to 100% of the total number of teaching staff. According to the results of the 2016-2017 academic year, Professor A. Semernin is the "Best University Teacher" The degree of teaching staff is 54.5%.

The academic staff of the graduating department for the SP 6B07114 - "Power supply to industrial enterprises and civilian facilities" and 7M07114 - "Power industry" consists of 13 people, including doctors of sciences, professors -2, candidates of sciences -2, doctor PhD - 1, masters of technical sciences - 8 senior teacher -1. Doctor PhD Orynbaev S.A. is the "Best University Teacher" in 2019. The degree of teaching staff is 50%. The average age of full-time teachers is 50 years. The cipher of specialties and academic rank correspond to the taught disciplines.

The quantitative and qualitative composition of AS in the context of SP is shown in table 6.7.1

Table 6.7.1 -Quantitative and qualitative composition of the AS in the context of sP

Indicator	2014-15 academic year	2015-16 academi c year	2016-17 academi c year	2017-18 academi c year	2018-19 academic year
<b>6B07117 "Designing and manufacturing of engineering products"</b>					
Total AS, people	33	34	36	36	38
counting, full-time AS	33	34	36	36	38
where:					
- with an academic degree of doctor Phd	-	1	2	2	2
- with a scientific degree of a candidate of sciences	18	19	21	20	21
- with an academic master's degree	4	6	7	8	9
- Senior Lecturer	11	8	6	6	6
The academic degree holders rate, %	54,5	58,0	63,0	61,0	60,0
<b>7M07115 "Technological support of machine-building production"</b>					
Total AS, people	12	13	13	12	12
counting, full-time AS	12	13	13	12	12
where:					
- with an academic degree of doctor Phd	-	1	1	1	1
- with a scientific degree of a candidate of sciences	10	10	10	9	9
- with an academic master's degree	2	2	2	2	2
- Senior Lecturer	-	-	-	-	-
The academic degree holders rate, %	83,3	84,6	84,6	83,3	83,3
<b>6B07111 "Automobiles and automobile industry"</b>					
Total AS, people	37	35	36	35	34
counting, full-time AS	37	35	36	35	34
where:					
- with an academic degree of doctor Phd	-	-	-	-	-
- with a scientific degree of a candidate of sciences	19	18	20	18	17
- with an academic master's degree	17	17	16	17	17
- Senior Lecturer	1	2	-	-	-
The academic degree holders rate, %	51,3	51,4	55,5	51,4	50,0

7M07116 "Automobiles and automobile industry"					
Total AS, people	11	12	12	12	12
counting, full-time AS	11	12	12	12	12
where:					
- with an academic degree of doctor Phd	-	-	-	-	-
- with a scientific degree of a candidate of sciences	9	10	10	10	10
- with an academic master's degree	2	2	2	2	2
- Senior Lecturer	-	-	-	-	-
The academic degree holders rate, %	81,9	83,3	83,3	83,3	83,3
6B07114 "Power supply of industrial enterprises and civil objects"					
Total AS, people	35	36	35	34	36
counting, full-time AS	35	36	35	34	36
where:					
- with an academic degree of doctor Phd	-	2	2	2	2
- with a scientific degree of a candidate of sciences		4	4	4	4
- with an academic master's degree	18	21	20	18	19
- Senior Lecturer	6	8	6	8	9
The academic degree holders rate, %	11	5	6	6	6
Total AS, people	53,5	57,0	58,4	59,2	61,0
7M07114 "Power industry"					
Total AS, people	12	13	13	12	12
counting, full-time AS	12	13	13	12	12
where:					
- with an academic degree of doctor Phd	-	1	1	1	1
- with a scientific degree of a candidate of sciences	10	10	10	9	9
- with an academic master's degree	2	2	2	2	2
- Senior Lecturer	-	-	-	-	-
The academic degree holders rate, %	83,3	83,3	83,3	81,3	81,3

Competitive selection of candidates for vacancy of professors and teaching staff was carried out in accordance with qualifications of the public candidates for the participation in the competition, the competition was held , on the website of M.Kh.Dulaty TarSU (tarsu.kz), at least 30 (thirty) calendar days before the date of the competition.

The university's personnel policy reflects institutional procedures in relation to teaching staff and staff (hiring, promotion, promotion, reduction, dismissal; rights and obligations, job descriptions), its accessibility to teaching staff and staff, which are reflected in internal regulatory documents :

- R 08-2016 "Personnel Management";
- r 11 / 1.02-2018 "Regulation on the competitive replacement of the posts of faculty";
- Regulation 18.02-2015 "Advanced training and competence in M.Kh.Dulaty TarSU ";
- R 4.01-2016 Rules of the internal labor schedule of M.Kh.Dulaty TarSU;
- Methodical instruction "Moral and material labor stimulation of teaching staff of M.Kh.Dulaty TarSU "

The process of selecting personnel, determining the qualifications of employees, arranging their admission, moving and dismissing, preparing documents for approval in the positions of employees is controlled by the university's organizational and personnel



work department together with the heads of structural divisions and in accordance with the staffing table.

The calculation of the academic load for the academic year is carried out by the department in accordance with the working curriculum of the specialty and the contingent of students. The distribution of academic work is carried out taking into account the qualifications of teachers and providing them with the opportunity to effectively engage in research, teaching and educational work. The average training load is 650 hours.

The professional development plan includes mutual attendance of classes, and the passage of short-term advanced training courses within the university and in the republic. The main goal of improving qualifications is to strengthen the scientific, pedagogical, educational and methodological level of training of teaching staff. Information on advanced training of teaching staff is shown in table 6.7.2.

Table 6.7.2 -Professional training of academic staff

Academic years	Number of people trained		
	Foreign	Republic	On TarSU base
6B07117 "Designing and manufacturing of engineering products", 7M07115 "Technological support of machine-building production"			
2014-2015	-	14	11
2015-2016	-	15	10
2016-2017	1	15	11
2017-2018	-	9	7
2018-2019	1	6	4
Total for 5 years	2	57	43
6B07111 "Automobiles and automobile industry", 7M07116 "Automobiles and automobile industry"			
2014-2015	-	1	6
2015-2016	-	2	6
2016-2017	-	2	6
2017-2018	-	1	8
2018-2019	-	1	8
Total for 5 years	-	7	34
6B07114 "Power supply of industrial enterprises and civil objects", 7M07114 "Power industry"			
2014-2015	-	-	7
2015-2016	-	-	7
2016-2017	-	-	18
2017-2018	-	2	18
2018-2019	1	1	18
Total for 5 years	3	91	52

Indicators of scientific activity of teaching staff in the SP are shown in the table 6.7.3.

Table 6.7.3 - AS Research Indicators

Types of publishing (volume / pages)	2014- 2015	2015 - 2016	2016 - 2017	2017- 2018	2018- 2019
6B07117 "Designing and manufacturing of engineering products", 7M07115 "Technological support of machine-building production"					
Monographs	2/7,6	5/5,6	7/3,0	7/	7/10
Textbooks and manuals	24/7,	19/6	41/12,	34/11,	26/8,7

	2		3	4	3
Science articles	-	-	4	-	2
including journals indexed (SCOPUS)					
Conference reports:	2	3	4	-	2
foreign Conference	5	8	14	7	14
international Conference	13	16	21	21	1
Republican Conference	2/7,6	5/5,6	7/3,0	7/	7/10
6B07111 "Automobiles and automobile industry", 7M07116 "Automobiles and automobile industry"					
Monographs	-	2/5,6	-	1/2,6	-
Textbooks and manuals	16/5, 2	18/6, 3	21/8,3	18/6,4	20/8,1
Science articles	3	5	6	4	8
including journals indexed (SCOPUS)	1	1			
Conference reports:					
foreign Conference	1	-	1	-	-
international Conference	3	8	6	4	5
Republican Conference	11	6	7	3	6
6B07114 "Power supply of industrial enterprises and civil objects", 7M07114 "Power industry"					
Monographs	1	-	2	2	1
Textbooks and manuals	-	-	2	6	
Science articles					52
including journals indexed (SCOPUS)	1	1	1	5	7
Conference reports:					
Foreign Conference	2	5	4	5	6
international Conference	2	5	6	10	11
Republican Conference	10	3	20	10	8

An important form of AS participation in the development of the regional community is the organization of training seminars and courses for various socially vulnerable groups of the population (legal advice, computer literacy training courses, business plan writing courses, language courses, etc.). The contribution of the faculty of TarSU to the development of civil society is significant through active participation in the activities of NGOs and professional associations. The University makes a great contribution to the development of social and youth policy through the organization of numerous socio-cultural events, events, competitions, festivals.

### **Analytical part**

According to the results of the analysis of the standard "Academic staff", the EEC notes the presence of an objective personnel policy, the staffing of educational programs with qualified specialists, the compliance of the teaching staff with the university's strategy and the specifics of the academic staff.

The academic staff of the special department use innovative teaching methods. Teachers successfully practice conducting presentations of training courses using interactive whiteboards, multimedia projectors, and using video equipment in the classroom.

The university has a rating system, on the basis of which a mechanism has been developed to reward teachers and staff for personal contributions and the results achieved in labor activities.

During a visit to the department and interviewing faculty, it was found that the university provides career opportunities and professional development of faculty staff and provides support to young teachers.

The department employs teaching staff with practical experience in production. At the same time, members of the EEC note that attracting practitioners from relevant industries to conduct training sessions within the framework of the SP will strengthen the practical orientation of the taught disciplines in the implemented SPs and will provide students with the opportunity to gain practical experience. However, the leadership of the SP did not provide information on attracting practitioners to conduct training sessions.

Teachers serving accredited SP take an active part in various public, scientific, methodological and research, cultural and other events of the region and the Republic.

The results of a survey conducted during the visit of the EEC showed that the faculty members of accredited SPs are rated "very good" and "good":

- the involvement of teaching staff in the process of making managerial and strategic decisions - 80.7%;
- Encouragement of innovative activity of teaching staff - 94.8%;
- providing opportunities for the continuous development of the teaching staff potential - 92.8%.

Express full satisfaction:

- participation in management decisions - 68.0%;
- the activities of the university administration - 77.3%;
- terms of remuneration - 62.9%;
- work on academic mobility - 42.3%.

***Strengths / best practice according to SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry are absent.***

***The EEC recommendation for SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry:***

- The management of the SP in the formation of the states and the distribution of the pedagogical load provide for the possibility of attracting practitioners of the relevant industries to conduct training sessions on accredited SP.

- To ensure the development of academic mobility of teaching staff in leading domestic and foreign universities in all academic institutions.

***The conclusions of the EEC on the criteria:***

According to the standard "Academic staff" for SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry": 12 criteria are disclosed, of which: 12 have a satisfactory position.

### **6.8. Standard "Educational Resources and Student Support Systems"**

#### ***Evidence part***

An important factor in ensuring the quality of education and guarantee sustainable development M.Kh.Dulaty TarSU is a continuous improvement of material and technical and information resources. The University has the material and technical base, providing all types of practical training and research work for students and undergraduates, provided for by the university curriculum and corresponding to the existing sanitary-epidemiological and fire safety standards and rules. Systematic work is underway to update and improve the material and technical base.

Students studying undergraduate studies 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry have the opportunity and access to the use of socio-cultural, sports facilities of the university.

During a visual inspection and visits to a special department, members of the EEC made sure that the university has the material, technical, information and library resources used to organize the learning process and educate students and implement the mission, goals and objectives of M.Kh.Dulaty TarSU.

General information about the material and technical base of the university (educational buildings, public catering and health care facilities, hostels, sports facilities, the book fund of the library, etc.) is given in the "Presentation of the organization of education" section.

The material and technical base and information resources of the university are specific and consistent with the goals of the educational program. Students are informed with the help of poster materials that decorated the building of the university's academic building. At the stand of the faculty are located: class schedule, schedules for the conduct of OH, midterm control and exams. For the implementation of the SP there is the necessary classroom fund. EPs are equipped with the necessary classrooms, training laboratories, computer labs, teaching and specialized classrooms. Information on the audit fund of SP is presented in table 6.8.1

Table 6.8.1 - Classroom Fund for accredited SPs for the 2018-2019 academic year

No	Building	Classroom number	Square, m <sup>2</sup>	Classroom capacity, ppl.	Name
6B07117 "Designing and manufacturing of engineering products", 7M07115 "Technological support of machine-building production"					
1	2.1	103	52	-	Material Strength Laboratory
2	2.5	204	72	60	Doctor of Technical Sciences, prof. T.M. Zhunisbekov Lecture Hall
3	2.5	213	56	36	Special classroom of parts and engineering products
4	2.5	217	56	24	Special classroom of engineering auxiliary equipment
5	2.5	111	72	30	Special classroom of typical cars

6	2.5	116	72	30	Special classroom of light industry machines
7	2.5	118	36	24	Special classroom of engineering mechanisms
8	2.5	119-121	144	24	Training and production site of the department
6B07114 "Power supply of industrial enterprises and civil objects", 7M07114 "Power industry"					
1	6.1	328	54	32	Laboratory "Fundamentals of relay protection and automation"
2	6.1	329	36	26	Laboratory "Repair and installation of electrical equipment"
3	6.1	330	36	12	Computer classroom
4	6.1	333	54	36	Interactive classroom
5	6.1	415	54	28	Laboratory "Fundamentals of power machines and electric drives"
6	2.5	416	54	26	Laboratory "Fundamentals of Automation"
7	2.5	417	36	18	Laboratory "TOP"
6B07111 "Automobiles and automobile industry", 7M07116 "Automobiles and automobile industry"					
1	3.0	101	24	22	Driver training classroom
2	3.0	102	28	20	Laboratory "Fuel and power equipment"
3	3.0	103	30	24	Thesis Design Classroom
4	3.0	105	34	22	Laboratory "Consumables for vehicles"
5	3.0	112 a	36	24	Laboratory "Internal Combustion Engines"
6	3.0	112 6	20	16	Laboratory "Chassis of transport equipment"
7	3.0	112B	20	16	Laboratory "Testing of internal combustion engines"
8	3.0	113	34	28	Laboratory "Technology of repair of units and assemblies of machines"
9	3.0	114	34	28	Laboratory "Restoration of parts"
10	6.1	321	36	24	"Railway Transport" classroom
11	6.1	322	36	24	"Organization of traffic" classroom
12	6.1	323	36	24	"Vehicle Security" classroom

13	6.1	324	36	24	"Technical means of traffic management" classroom
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Students accredited SP have the opportunity and access to the use of socio-cultural and sports facilities of the university.

The University Library and Information Center (BIC) has 1,407,309 copies of publications, of which 263,544 are in the state language. Educational and educational literature - 864 706 (61.4%) copies, scientific literature - 178 161 (12.7%) copies, fiction - 31482 (2.23%) copies. In addition, the information infrastructure of the library is presented in the form of scientific works of the faculty, textbooks, monographs, dissertations, abstract journals on traditional and electronic media and periodicals. The total fund of electronic resources is 32,668 copies, of which: electronic textbooks on CD and DVD - 6733 copies; electronic resources (textbooks and teaching aids) - 20,410 items, electronic teaching aids (syllabuses, teaching materials), - 5,525 items. The electronic resources fund is constantly replenished due to the joint development of teachers and the Center for New Information Technologies. For example, in the academic year 2017/2018, the library received 821 copies of electronic textbooks.

Every year, the university provides financial resources for the purchase of books and periodicals.

The library and information center of TarSU provides access to consumers on the use of electronic resources of the database of the company Web of Knowledge, Springer, Elsevier. The Center has concluded agreements with the Association of Universities of the Republic of Kazakhstan "On the Services of the RMEB", the National Academic Library of the Republic of Kazakhstan "EGBF-KazNEB", ABV RK, JSC "NTsNTI" on the provision of free online access to electronic information resources Web of Science,

Annually, for employees and faculty of the university, educational training courses are held on "Information and Media Literacy" on the use of full-text databases of foreign companies (Clarivate Analytics, Springer) in the educational and research process.

The university's information support meets the requirements of the study program, the library contains the materials necessary for training: educational, technical, reference and general literature, various periodicals.

The strength of the public organization is the presence of a specialized office, "Center for Psychological Adaptation" (R 11 / 1.16-2017 Inclusive Biological Psychology-pedagogical school of heresy). The center is designed for students with disabilities and special educational needs and is used during classes and during the session. In a specialized office for 10 seats, 5 computers, upholstered furniture, special appliances, and specialized literature are installed. When scheduling classes, examination sessions, the needs of persons with disabilities are provided by providing them with an individual training schedule.

The reliability of the final works, master's theses, research results presented by faculty in monographs, scientific articles and reports is evaluated by checking them for plagiarism according to the Anti-Plagiarism system.

### ***Analytical part***

According to the analysis of the standard "Educational resources and student support systems", the EEC notes that the existing classroom (lecture halls, specialized laboratories, computer classes, a training workshop) provides the need for accredited students in classrooms. The equipment of the laboratories complies with the safety requirements, there are passports of laboratories of the established form, safety instructions, a safety journal, fire extinguishing equipment, ground loop and emergency evacuation plan.

At a fairly good level, informational support is provided for educational and scientific-educational activities with access to full-text electronic resources of educational and

scientific significance, which meets the needs of students and teaching staff.

The strength of the public organization is the presence of a specialized office, "Center for Psychological Adaptation" (R 11 / 1.16-2017 Inclusive Biological Psychology-pedagogical school of heresy).

Theses and master's theses are tested for plagiarism.

However, members of the EEC note that it is necessary to provide for the possibility of updating the material and technical base of the department "Mechanics and Mechanical Engineering". To purchase modern educational and laboratory equipment for creating laboratories in the main core disciplines of the study program.

According to the results of the questionnaire, students are fully satisfied:

- accessibility of library resources - 81.7%;
- study rooms, classrooms for large groups - 69.7%;
- cabinets for small groups - 72.5%;
- computer classes and Internet resources - 72.0%.
- available computer classes - 77.1%;
- by scientific laboratories - 75.2%.
- provision of dormitories - 78.4%.

***Strengths / best practice according to SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry:***

*- Conducting activities on an ongoing basis that take into account the needs of various groups of students.*

***The EEC recommendation for SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry:***

*- To improve the material and technical base, implemented by the SP, by acquiring modern training equipment corresponding to the actually used at the enterprises of the relevant industries.*

***The conclusions of the EEC on the criteria:***

According to the standard "Educational resources and student support systems" for SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry": 10 criteria are disclosed, of which: 1 has a strong position, 8 is satisfactory, 1 criterion implies improvement.

**6.9. Public Awareness Standard**

***Evidence part***

M.Kh Dulaty TarSU seeks to carry out its activities by forming a positive image of the university in the external environment, establishing and maintaining cooperation with all interested parties.

The main channel for informing the public (applicants, their parents, students,

graduates and employers) is the official website of the university [www.tarsu.kz](http://www.tarsu.kz) (presented in Kazakh, Russian and English), which is intended for both external and internal use. In addition, interested parties can obtain information about the activities of the university through the following forms:

- Internet library resource with access to the electronic library [www.lib.tarsu.kz](http://www.lib.tarsu.kz);
- distance learning information system [www.cde.tarsu.kz](http://www.cde.tarsu.kz);
- social networks Instagram, Facebook, Vkontakte, Twitter, Youtube;
- publications in republican, regional and city / trade union mass media;
- participation in television programs of the agency "Jambyl", "77 TV", etc.

The Rector's Blog is posted on the site, providing communication with both students and faculty. In the Question and Answer section, each visitor to the site can leave a different kind of appeal (positive comment, question, complaint, etc.).

The university publishes the scientific journal "Vestnik TarSU", publishes the university multi-circulation newspaper "University of the Tynys." In addition, materials on university events are published in national and regional newspapers and magazines, as well as voiced on television.

In 2016, the university entered into an agreement with the 77 TV channel, and in 2017 and 2018 with the Jambyl channel for the production and placement of television stories.

The teaching staff and employees of the University are involved in conducting events at the regional level. As an effective tool for informing the public, to create the image of an open educational institution, various media resources are used, press conferences, briefings are held, business contacts with newspapers, magazines, radio and television are activated. For school graduates, Open Doors Days are held annually. Information for applicants is available on the university website on the tab "Applicant" <http://tarsu.kz/ru/abiturientu.html>.

The university annually publishes information sheets, booklets of faculties, advertising posters, pocket calendars.

The audited financial statements for 2018 are published on the university website at <http://tarsu.kz/ru/finansovo-ekonomicheskaya-služba/finansovyj-otchet.html>.

Employment of graduates and their career growth is facilitated by the "Career and Professional Development Center" created at the University, which coordinates the organization of student training and employment of graduates, and companies and employers participate in graduate employment through the conclusion of cooperation agreements.

External assessment of the university and accredited educational programs is carried out through accreditation procedures and participation in national and international ratings

During the scheduled meetings, members of the EEC revealed that to establish feedback with students and employers, reception on personal and other issues is carried out by university leaders, deans and department heads at set hours.

### ***Analytical part***

The EEC notes that the SP management uses the media and social networks to disseminate information. The website published information about the activities of the university, audited financial statements.

University, accredited study programs take part in national and international ratings.

Assessment of satisfaction with information about the activities of the university, the specifics and progress of the implementation of the SP is carried out annually by questioning and interviewing interested parties. The Rector's Blog is functioning on the university's website.

Based on the analysis of the information presented on the website, the EEC notes



that the results of the university's activities are not fully reflected. In connection with the creation of a national register of educational programs, experts note the need to update and supplement information on changes in educational programs. Present development plans for the study program, graduate models, substantiated information about the individuality and uniqueness of the study program, learning outcomes, assessment procedures and training opportunities provided to students, teaching staff (taught courses, publications, their research interests), etc.

According to the results of the questionnaire, students are fully satisfied:

- accessibility of library resources - 81.7%;
- the usefulness of the website of the university of education in general and faculties in particular - 76.1%;
- informing about courses, educational programs and academic degrees - 76.6%.

***Strengths / best practice according to SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry are absent.***

***The EEC recommendation for SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry:***

*- To provide participants of the educational process with the necessary information, carry out work on updating the university's website, improve the information content of the sites of structural units (in particular the faculty and special departments), in terms of the implemented educational programs, indicating specific expected learning outcomes, expand the personal pages of academic staff.*

***The conclusions of the EEC on the criteria:***

According to the standard "Public awareness" for SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry": 13 criteria are disclosed, of which: 12 have a satisfactory position, 1 criterion implies improvement.

**6.10. Standard "Standards in the context of individual specialties"**

***Evidence part***

The development of study programs 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry" directed for graduates of the study program to receive the necessary theoretical and practical training.

The educational process for accredited undergraduate and graduate programs is

carried out by annually updating teaching materials, updating the topics of dissertations and master's theses, as well as introducing new elective disciplines. Students have access to all library resources, which are updated and updated annually.

Annually, for students accredited, excursions to enterprises of the city of Taraz are held. These events provide students with familiarization with production equipment and processes, the functional responsibilities of staff.

At enterprises, bases of practice, the SP management organizes and conducts various types of practices: educational, industrial for undergraduate students, research for undergraduates. All types of practices are carried out in accordance with the curriculum, according to the academic calendar and methodically provided. Students undergo practical training in accordance with the order of the rector of a higher educational institution, which indicates the base of practice, the timing of its passage and the heads of practice from the educational institution. At the end of the practice, students submit reports in the approved form.

On the basis of the enterprise "Zapchast" JSC, "Zhambyl Electric Networks" LLP, branches of the department of accredited SP are opened.

In the educational process in the study program 6B07117 - "Designing and manufacturing of engineering products", 7M07115 - "Technological support of machine-building production", teachers with long experience working at the enterprises of the engineering industry associate professors B. Koyaydarov, S. Zhashen, P. Seitpanov. At the same time, it is necessary to provide an opportunity to increase the practical training of young teachers and teachers who do not have experience in production conditions.

Monitoring the impact of innovation in the educational process on learning outcomes is carried out at various levels. At the departments is through the system of mutual attendance of training sessions, discussions at methodological seminars. To improve the quality of the educational process, guest lectures are organized for students, including foreign teachers.

The university annually organizes and holds job fairs. As a result of such preliminary work, students even before graduation get an idea of the labor market, existing vacancies and the requirements for them.

### ***Analytical part***

Based on the results of the analysis carried out according to the standard "Standards in the context of individual specialties", members of the EEC note that the curriculum provides for disciplines aimed at obtaining practical experience by students.

To familiarize students with the production, the SP management organizes excursions to enterprises.

In special disciplines of the SP, the relationship with the content of fundamental disciplines is traced - mathematics, physics, chemistry.

A visit to the dean's office, graduating departments, laboratories, and special rooms confirms that the SP management provides for the possibility of preparing students using modern pedagogical and information technologies: interactive teaching methods, software products, multimedia presentation of lectures, consideration of situational tasks, non-standard (creative) solutions to problems, business games, etc.

By accredited SP, students are trained in the application of modern information technologies.

Presented and confirmed information on practical training in the workplace. However, the leadership of the SP does not involve practitioners from production to conduct training sessions. No internship arrangements at industrial enterprises for young teachers and teachers with no work experience in production.

**Strengths / best practice according to SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry are absent.**

**The EEC recommendation for SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry:**

- To develop and ensure the implementation of internship plans for academic staff on the basis of enterprises, to involve practitioners from production more widely in conducting training sessions.

**The conclusions of the EEC on the criteria:**

According to the standard "Standards in the context of individual specialties" for SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry":5 criteria are disclosed, of which: 5 have a satisfactory position.



## **(VII) OVERVIEW OF STRENGTHS / BEST PRACTICE BY EACH STANDARD**

### **According to the standard "Study Program Management" of the study programs:**

*Strengths / best practice according to SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry are absent.*

### **According to the standard "Information Management and Reporting Forms":**

*Strengths / best practice according to SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry are absent.*

### **According to the standard "Development, approval of the study program":**

*Strengths / best practice according to SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry are absent.*

### **According to the standard "Continuous monitoring and periodic evaluation of study programs":**

*Strengths / best practice according to SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry are absent.*

### **According to the standard "Student-centered learning, teaching and assessment":**

*Strengths / best practice according to SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry are absent.*

### **According to the standard "Students":**

*Strengths / best practice according to SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production,*

6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry are :

- A program has been developed and is being implemented that provides adaptation and support for all categories of students who entered the first year.
- The presence of a mechanism to support gifted students.

**According to the standard "Academic staff":**

Strengths / best practice according to SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry are absent.

**According to the standard "Learning resources and student support":**

Strengths / best practice according to SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry are :

- Conducting activities on an ongoing basis that take into account the needs of various groups of students.

**According to the standard "Public Relations":**

Strengths / best practice according to SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry are absent.

**According to the standard "Standards in the frame of specific specialties":**

Strengths / best practice according to SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry are absent.

## **(VIII) REVIEW OF QUALITY IMPROVEMENT RECOMMENDATIONS BY EACH STANDARD**

### **According to the standard "Study Program Management" of the study programs:**

*EEC recommendations for SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry*

- Update the "Regulation on the design of study programs" by providing a section on the systematic monitoring (indicating the frequency) of the implementation of educational programs, their evaluation, achievement of learning goals, meeting public needs and others. Describe the mechanism aimed at continuous improvement of the development of SP;

- Specify the development plan for accredited SPs in order to determine their individuality and uniqueness in accordance with the University Development Program and with changes in regulatory legal acts in the higher education system of the Republic of Kazakhstan;

- In order to improve the quality of implemented SPs, develop measures aimed at providing feedback to interested parties at all stages of development of the SP;

- Develop an action plan to improve the risk management system, evaluating all the factors affecting the decline in the quality of implementation of SP (features of the development of the region, the qualitative composition of applicants, the possibility of practical training of students, the material and technical base of SP, etc.).

### **According to the standard "Information Management and Reporting Forms":**

*EEC recommendations for SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry*

- Improve the system of continuous monitoring of stakeholder satisfaction in order to analyze the implementation of the developed plans and evaluate the effectiveness and efficiency of the parties involved in the design and implementation of the SP taking into account the determination of external and internal risks.

- Ensure decision-making on improving educational programs based on the analysis of information provided by students, faculty, and university employees.

### **According to the standard "Development, approval of the study program":**

*EEC recommendations for SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry*

- Update the models of graduates of SP with a focus on learning outcomes developed in accordance with Dublin descriptors of the first level (bachelor's degree) and second level (master's degree) of higher education;

- Develop an action plan to prepare students for professional certification;

- Develop activities for the organization of work on concluding cooperation agreements with Kazakhstan and foreign universities on the development and implementation of joint

educational programs in order to harmonize them and for the effective development of academic mobility;

- To prepare the topic of research work in the department's areas of activity for submitting applications for participation in the competition for targeted funding for scientific, scientific and technical programs.

**According to the standard "Continuous monitoring and periodic evaluation of study programs":**

*EEC recommendations for SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry*

- Develop and implement a mechanism to improve the awareness of all interested parties about any changes made to educational programs.

**According to the standard "Student-centered learning, teaching and assessment":**

*EEC recommendations for SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry*

- To prepare a plan for the development and implementation in the educational process of their own research of teaching staff in the field of teaching methods of academic disciplines with subsequent implementation.

**According to the standard "Students":**

*EEC recommendations for SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry*

- To expand the practice of implementing internal and external mobility of students by concluding cooperation agreements with Kazakh and foreign universities that implement similar educational programs.

**According to the standard "Academic staff":**

*EEC recommendations for SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry*

- The management of the SP in the formation of the states and the distribution of the pedagogical load provide for the possibility of attracting practitioners of the relevant industries to conduct training sessions on accredited SP.

- To ensure the development of academic mobility of teaching staff in leading domestic and foreign universities in all academic institutions.

**According to the standard "Learning resources and student support":**

*EEC recommendations for SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry*

- To improve the material and technical base, implemented by the SP, by acquiring modern training equipment corresponding to the actually used at the enterprises of the relevant industries.

**According to the standard "Public Relations":**

*EEC recommendations for SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry*

- To provide participants of the educational process with the necessary information, carry out work on updating the university's website, improve the information content of the sites of structural units (in particular the faculty and special departments), in terms of the implemented educational programs, indicating specific expected learning outcomes, expand the personal pages of academic staff.

**According to the standard "Standards in the frame of specific specialties":**

*EEC recommendations for SP 6B07117 Designing and manufacturing of engineering products, 7M07115 Technological support of machine-building production, 6B07111 Automobiles and automobile industry, 7M07116 Automobiles and automobile industry, 6B07114 Power supply of industrial enterprises and civil objects, 7M07114 Power industry*

- To develop and ensure the implementation of internship plans for academic staff on the basis of enterprises, to involve practitioners from production more widely in conducting training sessions.



**Annex 1. Assessment Table "Parameters of a specialized profile" (6B07117 – "Designing and manufacturing of engineering products", 6B07111 "Automobiles and automobile industry", 6B07114 "Power supply of industrial enterprises and civil objects", 7M07114 "Power industry", 7M07115 "Technological support of machine-building production", 7M07116 "Automobiles and automobile industry")**

№	№	Assessment criteria	Rating compliance			
			strong	satisfactory	Suggests improvement	unsatisfactory
<b>Standard 1. Management of the study program</b>						
1	1.	The university must have a published quality assurance policy.		+		
2	2.	Quality assurance policies should reflect the link between research, teaching and learning.		+		
3	3.	The university should demonstrate the development of a culture of quality assurance, including in the context of SP.		+		
4	4.	A commitment to quality assurance should apply to any activity carried out by contractors and partners (outsourcing), including in the implementation of joint / double degree education and academic mobility.		+		
5	5.	The SP management ensures transparency in the development of the SP development plan based on an analysis of its functioning, the actual positioning of the university and its focus on meeting the needs of the state, employers, interested individuals and students.		+		
6	6.	SP management demonstrates the functioning of the mechanisms for forming and regularly reviewing the SP development plan and monitoring its implementation, assessing the achievement of learning objectives, meeting the needs of students, employers and society, making decisions aimed at continual improvement of SP..			+	
7	7.	SP management should involve representatives of stakeholder groups, including employers, students and faculty members, in the formation of the SP development plan.		+		
8	8.	SP management must demonstrate the individuality and uniqueness of the SP development plan, its consistency with national development priorities and the development strategy of the educational organization.			+	
9	9.	The university should demonstrate a clear definition of those responsible for business processes within the framework of the SP, an unambiguous distribution of the duties of the staff, and delimitation of the functions of collegial bodies.		+		
10	10.	SP management must provide evidence of the		+		

		transparency of the study program management system.				
11	11.	SP management must demonstrate the successful functioning of the internal quality assurance system of the SP, including its design, management and monitoring, their improvement, and decision-making based on facts.		+		
12	12.	SP management must manage risk.		+		
13	13.	SP management should ensure the participation of representatives of interested parties (employers, teaching staff, students) in the collegial bodies of the educational program management, as well as their representativeness in making decisions on study program management.		+		
14	14.	The university should demonstrate innovation management in the framework of the SP, including the analysis and implementation of innovative proposals.		+		
15	15.	SP management should demonstrate evidence of openness and accessibility for students, faculty, employers and other interested parties.		+		
16	16.	SP management must be trained in education management programs.		+		
17	17.	SP management should strive to ensure that progress made since the last external quality assurance procedure was taken into account in preparation for the next procedure.		+		
<b>Total by standard</b>				<b>15</b>	<b>2</b>	
<b>Standard "Information Management and Reporting"</b>						
18	1.	The university should ensure the functioning of a system for collecting, analyzing and managing information based on the use of modern information and communication technologies and software.		+		
19	2.	SP management must demonstrate the systematic use of processed, adequate information to improve the internal quality assurance system.		+		
20	3.	Within the framework of EP, there should be a system of regular reporting, reflecting all levels of the structure, including an assessment of the effectiveness and efficiency of the departments and departments, and scientific research.		+		
21	4.	The university should establish the frequency, forms and methods of evaluating the management of SP, the activities of collegial bodies and structural divisions, senior management, and the implementation of scientific projects.		+		
22	5.	The university should demonstrate the definition of the order and ensuring the protection of information, including the definition of responsible persons for the accuracy and timeliness of the analysis of information and the provision of data.		+		
23	6.	An important factor is the involvement of students, workers and teaching staff in the processes of collecting and analyzing information, as well as making decisions		+		

		based on them.				
24	7.	SP management should demonstrate the existence of a communication mechanism with students, employees and other interested parties, including the existence of conflict resolution mechanisms		+		
25	8.	The university should provide a measure of the degree of satisfaction of the needs of faculty, staff and students in the framework of the SP and demonstrate evidence of elimination of the discovered deficiencies.			+	
26	9.	The university should evaluate the effectiveness and efficiency of activities, including in the context of SP.		+		
		Information collected and analyzed by the university should be taken into account:				
27	10.	key performance indicators;		+		
28	11.	the dynamics of the contingent of students in the context of forms and types;		+		
29	12.	level of academic achievement, student achievement and expulsion;		+		
30	13.	students' satisfaction with the implementation of the academic program and the quality of education at the university		+		
31	14.	the availability of educational resources and support systems for students;		+		
32	15.	employment and career growth of graduates.		+		
33	16.	Students, employees and faculty must document their consent to the processing of personal data.		+		
34	17.	SP management should facilitate the provision of all necessary information in relevant fields of science.		+		
<b>Total by standard</b>				<b>16</b>	<b>1</b>	
<b>Standard "Development and approval of study program"</b>						
35	1.	The university should determine and document the procedures for the development of SP and their approval at the institutional level.		+		
36	2.	SP management should ensure that developed EPs are consistent with established goals, including intended learning outcomes.		+		
37	3.	SP management should ensure the availability of developed models of the graduate of the SP that describe the learning outcomes and personal qualities.		+		
38	4.	SP management must demonstrate that it conducts external reviews of the SP.		+		
39	5.	The qualifications obtained upon completion of the SP must be clearly defined, explained and consistent with a certain level of NSC.		+		
40	6.	SP management should determine the impact of disciplines and professional practices on the formation of learning outcomes.		+		

41	7.	An important factor is the ability to prepare students for professional certification.			+	
42	8.	SP management must provide evidence of the participation of students, faculty and other stakeholders in the development of SP, ensuring their quality.		+		
43	9.	The complexity of the SP should be clearly defined in Kazakhstan loans and ECTS.		+		
44	10.	SP management should ensure the content of academic disciplines and learning outcomes for the level of training (bachelor's, master's, doctoral)		+		
45	11.	In the structure of the SP should provide for various activities consistent with the learning outcomes.		+		
46	12.	An important factor is the presence of joint educational institutions with foreign educational organizations.			+	
<b>Total by standard</b>				<b>10</b>	<b>2</b>	
<b>Standard "Constant monitoring and periodic assessment of study programs"</b>						
47	1.	The university should conduct monitoring and periodic assessment of the SP in order to ensure the achievement of the goal and meet the needs of students and society. The results of these processes are aimed at continuous improvement of the SP.		+		
	2.	Monitoring and periodic assessment of SP should consider:				
48	2.1	the content of the programs in the light of the latest achievements of science in a particular discipline to ensure the relevance of the taught discipline;		+		
49	2.2	changes in the needs of society and the professional environment;		+		
50	2.3	load, academic performance and graduation of students;		+		
51	2.4	the effectiveness of student assessment procedures;		+		
52	2.5	students' expectations, needs, and satisfaction with learning in SP;		+		
53	2.6	educational environment and support services and their compliance with the goals of the SP.		+		
54	3.	The university and the SP management must provide evidence of the participation of students, employers and other stakeholders in the revision of the SP.		+		
55	4.	All interested parties should be informed of any planned or taken actions regarding the SP. All changes made to the SP should be published.		+		
56	5.	SP management should ensure that the content and structure of the SP are reviewed taking into account changes in the labor market, requirements of employers and the social request of the company.		+		
<b>Total by standard</b>				<b>10</b>		
<b>Standard "Student-centered learning, teaching, and assessment"</b>						

57	1.	SP management should ensure respect and attention to various groups of students and their needs, providing them with flexible learning paths.		+		
58	2.	SP management should ensure the use of various forms and methods of teaching and learning.		+		
59	3.	An important factor is the availability of our own research in the field of teaching methods of educational disciplines of SP.		+		
60	4.	SP management should demonstrate the existence of a feedback system for the use of various teaching methods and assessment of learning outcomes.		+		
61	5.	SP management should demonstrate support for students' autonomy while guiding and assisting the teacher.		+		
62	6.	SP management should demonstrate the existence of a procedure for responding to student complaints.		+		
63	7.	The university should ensure the consistency, transparency and objectivity of the mechanism for assessing learning outcomes for each SP, including the appeal.		+		
64	8.	The university should ensure that the procedures for evaluating the learning outcomes of students of SP study are in line with the planned learning outcomes and program objectives. Evaluation criteria and methods within the framework of the SP should be published in advance.		+		
65	9.	The university should determine the mechanisms for ensuring the mastery of each learning outcome by each graduate of the study program and ensure the completeness of their formation.		+		
66	10.	Evaluators must be proficient in modern methods of assessing learning outcomes and regularly improve their skills in this area.		+		
<b>Total by standard</b>				<b>10</b>		
<b>Standard «Students»</b>						
67	1.	The university should demonstrate a policy for the formation of the contingent of students from admission to graduation and ensure the transparency of its procedures. Procedures governing the life cycle of students (from admission to completion) must be defined, approved, published.		+		
68	2.	SP management should demonstrate the implementation of special adaptation and support programs for newly arrived and foreign students.	+			
69	3.	The university must demonstrate the conformity of its actions to the Lisbon Recognition Convention.		+		
70	4.	The university should cooperate with other educational organizations and national centers of the European Network of National Information Centers for Academic Recognition and Mobility / National Academic Recognition Information Centers ENIC / NARIC in order to ensure		+		

		comparable recognition of qualifications.				
71	5.	SP management should demonstrate the existence and application of a mechanism for recognizing the results of academic mobility of students, as well as the results of additional, formal and non-formal learning.		+		
72	6.	The university should provide an opportunity for external and internal mobility of students of SP, as well as assist them in obtaining external grants for training.		+		
73	7.	SP management should make every effort to provide students with places of practice, facilitate the employment of graduates, and maintain contact with them.		+		
74	8.	The university should provide graduates of the study program with documents confirming the qualifications obtained, including the results of training, as well as the context, content and status of the education and evidence of completion.		+		
75	9.	An important factor is the monitoring of employment and professional activities of graduates of SP.		+		
76	10.	SP management should actively encourage students to self-education and development outside the main program (extracurricular activities).		+		
77	11.	An important factor is the existence of an existing alumni / association.		+		
78	12.	An important factor is the availability of a support mechanism for gifted students.	+			
<b>Total by standard</b>			<b>2</b>	<b>10</b>		
<b>Standard «Academic staff»</b>						
79	1.	The university should have an objective and transparent personnel policy, which includes hiring, professional growth and development of personnel, which ensures the professional competence of the whole staff.		+		
80	2.	The university should demonstrate the conformity of the personnel potential of the AS with the development strategy of the university and the specifics of the SP.		+		
81	3.	The university should demonstrate awareness of responsibility for its employees and providing them with favorable working conditions.		+		
82	4.	The university should demonstrate a change in the role of the teacher in connection with the transition to student-centered learning.		+		
83	5.	The university should determine the contribution of AS to the implementation of the development strategy of the university and other strategic documents.		+		
84	6.	The university should provide opportunities for career growth and professional development of teaching staff.		+		
85	7.	The university should attract practitioners of relevant industries to the teaching.		+		
86	8.	The university should provide targeted actions to develop young teachers.		+		

87	9.	The university should demonstrate the motivation for the professional and personal development of teachers, including the promotion of both the contribution to the integration of research and education, and the use of innovative teaching methods.		+		
88	10.	An important factor is the active use of information and communication technologies in the educational process (for example, on-line training, e- portfolios, MOOC, etc.) by the academic staff.		+		
89	11.	An important factor is the development of academic mobility, attracting the best foreign and domestic teachers.		+		
90	12.	An important factor is the involvement of the AS in the life of society (the role of teaching staff in the education system, the development of science, the region, the creation of a cultural environment, participation in exhibitions, creative competitions, charity programs, etc.).		+		
<b>Total by standard</b>				<b>12</b>		
<b>Standard "Learning resources and student support"</b>						
91	1.	SP management must demonstrate the adequacy of material and technical resources and infrastructure.		+		
92	2.	SP management should demonstrate the existence of support procedures for various groups of students, including information and counseling.		+		
	3	SP management must demonstrate compliance of information resources with SP specifics, including compliance with:				
93	3.1	technological support for students and faculty in accordance with educational programs (for example, online training, modeling, databases, data analysis programs);		+		
94	3.2	library resources, including a fund of educational, methodological and scientific literature on general education, basic and majors in paper and electronic media, periodicals, access to scientific databases;		+		
95	3.3	examination of the results of research, final works, dissertations on plagiarism;		+		
96	3.4	Access to Educational Internet Resources		+		
97	3.5	WI-FI functioning in the territory of the educational organization.		+		
98	4.	The university should strive to ensure that the educational equipment and software used to master the educational program are similar to those used in the relevant industries.			+	
99	5.	The university must ensure compliance with safety requirements in the learning process.		+		
100	6	The university should strive to take into account the needs of various groups of students in the context of EP (adults, workers, foreign students, as well as students with	+			

		disabilities).				
<b>Total by standard</b>			<b>1</b>	<b>8</b>	<b>1</b>	
<b>Standard «Public Relations»</b>						
		The information published by the university should be accurate, objective, relevant and should include:				
101	1.	Implemented programs, indicating the expected learning outcomes;		+		
102	2.	Information on the possibility of assigning qualifications at the end of the educational program;		+		
103	3.	Information on teaching, training, evaluation procedures;		+		
104	4.	Information on passing scores and educational opportunities provided to students;		+		
105	5.	Information on job opportunities for graduates.		+		
106	6.	The management of the university should use a variety of ways to disseminate information (including media, web resources, information networks etc.) to inform the general public and interested persons.		+		
107	7.	Informing the public should provide support and explanation of national development programs of the country and the system of higher and postgraduate education.		+		
108	8.	The university should publish audited financial statements on its own web resource.		+		
109	9.	The university should demonstrate on the web resource the reflection of information characterizing the university in general and in the context of the educational program.		+		
110	10.	An important factor is the availability of adequate and objective information about teaching staff, in the context of personalities.			+	
111	11.	An important factor is the placement of information on cooperation and interaction with partners, including with scientific / consulting organizations, business partners, social partners and educational organizations.		+		
112	12.	The university should post information and links to external resources based on the results of external evaluation procedures.		+		
113	13.	An important factor is the participation of the university and implemented SPs in various external assessment procedures.		+		
<b>Total by standard</b>				<b>12</b>	<b>1</b>	
<b>Standards in the frame of certain specialties</b>						
<b>Technical Sciences and Technologies</b>						
		<i>Study programs on specialties « Technical Sciences and Technologies», such as «Designing and manufacturing of engineering products», «Transport, transport equipment and technologies», «Electric Power</i>				



		<b>Industry» and so on, must meet the following requirements:</b>				
114	1.	In order to familiarize students with the professional environment and relevant 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 majors in particular, in t .h .: - excursions to enterprises in the field of specialization (factories, workshops, research institutes, laboratories, educational and experimental farms, etc.), anatomy or entire disciplines at the enterprise of specialization - holding seminars to solve practical problems relevant to enterprises in the field of specialization, etc.		+		
115	2.	The academic staff involved in the education program should include full-time teachers who have long-term experience as full-time employees in enterprises in the field of specialization of the education program.		+		
116	3.	The content of all disciplines of physics should be based to one degree or another and include a clear relationship with the content of fundamental natural sciences, such as mathematics, chemistry, physics.		+		
117	4.	SP management should provide measures to strengthen practical training in the field of specialization.		+		
118	5.	SP management should provide training for students in the application of modern information technologies.		+		
<b>Total by standard</b>				<b>5</b>		
<b>Total</b>			<b>3</b>	<b>108</b>	<b>7</b>	