

## **REPORT**

On the results of the work of the external expert commission for the evaluation of compliance with the standards of specialized accreditation (Ex-ante) of educational programs 6B06102 COMPUTER SCIENCE 7M06102 COMPUTER SCIENCES 8D06102 COMPUTER SCIENCE

## OF "SULEIMAN DEMIREL UNIVERSITY" INSTITUTION

Date of on-line visit using the hybrid model: December "13" to December "15" 2021

## INDEPENDENT ACCREDITATION AND RATING AGENCY External Expert Commission

Addressed to IAAR Accreditation Council



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## **CONTENTS**

(I) LIST OF SYMBOLS AND ABBREVIATIONS	3
(II) INTRODUCTION	5
(III) DESCRIPTION OF THE EDUCATIONAL ORGANIZATION	7
(IV) DESCRIPTION OF THE PREVIOUS ACCREDITATION PROCESS	8
(V) DESCRIPTION OF THE EEC VISIT	8
(VI) COMPLIANCE WITH THE STANDARDS OF SPECIALIZED ACCREDITATION	10
6.1. Standard " Management of Educational Programme"	10
6.2. Standard "Information Management and Reporting"	13
6.3. Standard "Development and Approval of the Education Programme"	15
6.4. Standard «On-Going Monitoring and Periodic Review of Educational Programme»	18
6.5. Standard "Student-centered learning, teaching and performance evaluation"	20
6.6. Standard " Students"	21
6.7. Standard " Teaching staff"	24
6.8. Standard "Education Resources and Student Support Systems"	26
6.9. Standard «Public Information»	28
(VII) OVERVIEW OF STRENGTHS/BEST PRACTICES OF EACH STANDARD	30
(VIII) OVERVIEW OF RECOMMENDATIONS ON QUALITY IMPROVEMENT	31
(IX) REVIEW OF RECOMMENDATIONS FOR THE DEVELOPMENT OF THE	
EDUCATIONAL ORGANIZATION	32
Appendix 1: Evaluation Table "SPECIALIZED PROFILE PARAMETERS"	33

## (I) LIST OF SYMBOLS AND ABBREVIATIONS

DB - Basic Disciplines

HEI - higher educational institution

EEC - external expert commission

SAC - State Attestation Commission

SCSE RK - State Compulsory Standards of Education of the Republic of Kazakhstan

SEDP - State Education Development Program

**UNT - Unified National Test** 

FGA - Final State Attestation

FC - Final Control

ICT - Information and Communication Technologies

IT - Information Technologies

IEP - Individual Educational Plan

CCSES - Committee for Control in the Sphere of Education and Science

CTA - Comprehensive tests of applicants

CTE - Credit Technology of Education

CED - Catalogue of elective disciplines

MC - Intercultural Competence

MES RK - Ministry of Education and Science of the Republic of Kazakhstan

MOOCs - Massive open online courses

MEP - Modular Educational Programs

MC - Modular Curriculum

IAAR - Independent Accreditation and Rating Agency

NLA - regulatory legal acts

NQF - National Qualifications Framework

RP - Research paper

NIRO - scientific research work of the learner

NRS - Student Research Paper

NSC - National Qualification System

NTS - Scientific and Technical Council

GER - General education disciplines

OP - Educational programs

AP - Major disciplines

PC - Professional Competence

PPS - Teaching Personnel

GEP - General Educational Plan

SDU - Suleyman Demirel University

IWM - Independent work of Master students

IWS - Independent work of students

DBMS - Database Management System

MEP - Model educational plan

EMB - Educational and Methodical Bureau

EMC - Educational and Methodical Council

ECTS - European Credit Transfer System

ESG - Standards and Guidelines for Quality Assurance in the European Higher Education Area

QF-EHEA - Qualifications Framework for the European Higher Education Area

PhD - Doctor of Philosophy

SWOT - Strengths and Weaknesses Analysis

## (II) INTRODUCTION

In accordance with the order № 175-21-oд from 15.11.2021 of the General Director of the Independent Agency of Accreditation and Rating, from December 13, 2021 to December 15, 2021 (inclusive) the external expert commission conducted evaluation of the institution "Suleyman Demirel University" for compliance with standards of specialized accreditation of educational programs of higher and postgraduate education of the IAAR on the following educational programs: 6B06102 Computer science, 7M06102 Computer science, 8D06102 Computer science.

The report of the External Expert Commission (EEC) contains the evaluation of the activities of the Institution "Suleyman Demirel University" on the presented educational programs in the framework of specialized accreditation to the IAAR standards criteria, EEC recommendations for further improvement of educational programs and parameters of the profile of educational programs.

#### **Members of EEC of IAAR:**

Chairman of EEC - Palkin Evgeny Alekseyevich, CoS in Physics and Mathematics, Professor, Laureate of the USSR State Prize, Vice-Rector for Science of the Russian New University, (Moscow, Russian Federation).

Foreign expert - Li Chong Ku, CoS in Economics, Associate Professor at Yanka Kupala State University of Grodno (Grodno, Republic of Belarus) Evaluation of EP 6B04105 Digital Marketing.

Foreign expert - Belousov Alexander Valeryevich, CoS in technologies, Deputy Head of Educational and Methodological Department, Gubkin Russian State University of Oil and Gas (National Research University) (Moscow, Russian Federation). Evaluation of EP 6B06101 Information Systems.

IAAR expert - Lushchik Alexander Cheslavovich, Ph.D. in Physics and Mathematics, Professor, Head of Ion Crystal Physics Laboratory, Institute of Physics, University of Tartu (Tartu, Estonia). Evaluation of EP 8D01501 Mathematics.

IAAR expert - Shunkeyev Kuanyshbek Shunkeyevich, Ph.D. in Physics and Mathematics, professor of Aktobe Regional University named after K. Zhubanov (Aktobe, Republic of Kazakhstan). Evaluation of EP 6B01503 Physics-Informatics.

IAAR expert - Akibayeva Gulvira Sovbekovna, CoS in Economy., Category I IAAR expert (Karaganda, Republic of Kazakhstan). Evaluation of EP 6B04104 Finance, 6B04103 Accounting and Audit.

IAAR expert - Beisenkulov Ayazbi Akhbergenovich, professor of Media-communication department, International University of Information Technologies (Almaty, the Republic of Kazakhstan). Evaluation of EP 6B03201 Journalism (TV and Multimedia).

IAAR expert - Yensebayeva Marzhan ZaitovnaCoS in Economy, Associate Professor, Director of Corporate Development at K.I. Satpayev Kazakh National Research Technical University (Almaty, Republic of Kazakhstan). Evaluation of EP 6B05401 Mathematics, 7M05401 Mathematics.

IAAR expert - Kushebina Gulnara Malikovna, CoS in Economics, Vice-Rector for Academic Development of Kostanai Engineering and Economic University named after M. Dulatov (Kostanai, Kazaskhatan Republic). Evaluation of EP 6B04101 Economics.

IAAR expert - Karimova Gulmira Sarsemkhanovna, PhD, Senior Lecturer, Department of the Kazakh language and literature, Kazakh National Pedagogical University named after Abay (Almaty, Republic of Kazakhstan). 6B01701 Kazakh Language and Literature, 7M01701 Kazakh Language and Literature.

IAAR expert - Kulakhmetova Mergul Sabitovna, CoS in Philology, Associate Professor, Pavlodar Pedagogical University (Pavlodar, Republic of Kazakhstan). Evaluation of EP 6B02302 Translation Studies.

IAAR expert - Kulzhumieva Aiman Amangeldievna, CoS in Physics and Mathematics, Associate Professor of Mathematics Department, West Kazakhstan University named after M. Utemisov (Uralsk, Republic of Kazakhstan). EP 6B01501 Mathematics, 7M01501 Mathematics. IAAR expert - Kusanova Bibigul Khakimovna, Ph.D. in Philology, professor of L.N. Gumilev Eurasian National University (Nur-Sultan, Republic of Kazakhstan). Evaluation of EP 8D01702 Foreign Language: Two Foreign Languages.

IAAR expert - Mustafina Akkyz Kurakovna, CoS in technologies, Associate Professor, Vice-Rector for Academic and Educational Activities of the International University of Information Technologies (Almaty, Republic of Kazakhstan). Evaluation of EP 6B06102 Computer Science, 7M06102 Computer Science.

National Expert - Arzaeva Maya Zhetkergenna, CoS in economy., Associate Professor of Academy of Logistics and Transport (Almaty, Republic of Kazakhstan) Evaluation of EP 6B04102 Management, 7M04102 Management.

IAAR expert - Ordabaeva Maigul Aitkazievna, PhD, Head of Economics and Management Department of S. Amanzholov East Kazakhstan University (Ust-Kamenogorsk, Republic of Kazakhstan). Evaluation of EP 8D04101 Management.

IAAR expert - Safarov Ruslan Zairovich, Candidate of Chemical Sciences, Associate Professor at L.N. Gumilev Eurasian National University (Nur-Sultan, Republic of Kazakhstan). Evaluation of EP 6B01502 Chemistry-Biology.

IAAR expert - Tatarinova Lola Furkatovna, CoS in Law, Associate Professor at UIB International Business University (Almaty, Republic of Kazakhstan). Evaluation of EP 6B042001 Applied Law.

IAAR expert - Tuyakbaev Gabit Aneshovich, CoS in Philology, Korkyt Ata Kyzylorda University (Kyzylorda, Republic of Kazakhstan). Evaluation of EP 8D01701 Kazakh language and literature.

IAAR expert - Urmashev Baidaulet Amantayevich, CoS in Physics and Mathematics, Associate Professor at Al-Farabi Kazakh National University (Almaty, Republic of Kazakhstan). Evaluation of EP 8D06102 Computer Science.

IAAR expert - Shevyakova Tatiana Vasilyevna, CoS in Philology, professor of International communications Department of Kazakh University of International Relations and World Languages named after Abylai Khan (Almaty, Republic of Kazakhstan). Evaluation of EP 6B01702 Foreign language: two foreign languages, 7M01702 Foreign language: two foreign languages.

IAAR expert - Chukubaev Ermek Samarovich, Head of the Department of International Relations and World Economy, Al-Farabi Kazakh National University (Almaty, Republic of Kazakhstan). Evaluation of EP 6B03101 International Relations, 6B04202 International Law. IAAR expert, employer - Safullin Yeldos Nabiullievich, Deputy Director for Educational and Methodological Work of the Institute of Professional Development of Pedagogical Workers of the NCPK "Orleu" in West Kazakhstan region (Uralsk, Republic of Kazakhstan).

IAAR expert, employer - Pitrakov Vladimir Yurievich, director of Pavlodar regional branch of JSC "ENPF" (Pavlodar, Republic of Kazakhstan).

IAAR expert, student - Sarabek Nazerke Erikkyzy, 3rd year student of elementary school teacher of Humanitarian college (Aktobe, Republic of Kazakhstan). Evaluation of EP 6B05401 Mathematics.

IAAR expert, student - Batyrova Akmaral Meirkhankyzy, 2nd year student of Educational Program 6B04132 State and Local Administration at K. Zhubanov Aktobe Regional University (Aktobe, Republic of Kazakhstan). EP 6B04102 Management, 7M04102 Management. IAAR expert, student - Yegizbaeva Asylzat Erkinkyzy, 1st year student of EP 7M06149 Information Systems at Korkyt Ata Kyzylorda University (Kyzylorda, Republic of Kazakhstan). OP 6B06102 Computer Science, 7M06102 Computer Science.

IAAR expert, student - Ersayyn Saya Zhastalapkyzy, 3rd year student of EP 6B03201 Journalism, Turan University, member of the Alliance of Students of Kazakhstan (Almaty, Republic of Kazakhstan). Evaluation of EP 6B03201 Journalism (TV and Multimedia). IAAR expert, student - Kendengulova Sholpan Erbulatovna, 1st year student of EP 6B01702 Foreign language: two foreign languages of K. Zhubanov Aktobe Regional University (Aktobe, Republic of Kazakhstan). On-line participation

IAAR expert, student - Oktyabr Akiyk, 3rd year student of educational program 6B01513 Physics-Informatics of S. Amanzholov East Kazakhstan University (Ust-Kamenogorsk, Republic of Kazakhstan). Evaluation of EP 6B01503 Physics-Informatics.

Expert IAAR, student - Sailaubekova Alina Zharkynkyzy, 2nd year student of educational program 7M01701 Kazakh language and literature of Shakarim University in Semey (Semey, Republic of Kazakhstan). 6B01701 Kazakh Language and Literature, 7M01701 Kazakh Language and Literature.

IAAR expert, student - Seyit Rabiya Kalmakhankyzy, 4-year student of the educational program 6B06101 Information Systems of S. Amanzholov East Kazakhstan University (Ust-Kamenogorsk, Republic of Kazakhstan). Evaluation of OP 6B06101 Information Systems. IAAR Coordinator - Niyazova Guliyash Balkenovna, Project Manager on institutional and specialized accreditation of universities (Nur-Sultan, Republic of Kazakhstan).

## (III) PRESENTATION OF THE EDUCATIONAL ORGANIZATION

Suleiman Demirel University is a private institution of higher education that is a non-profit, trust-funded organization. SDU strives to take a leading position in the international higher education arena through English language education, and to train highly qualified professionals with all the necessary skills, knowledge and mobility to strengthen its position in the global labor market.

The University carries out educational activities on the basis of the relevant license (No. KZ68LAA00003730, issued by the COKSON MES RK, 02.12.2014) within the framework of the national educational system in accordance with the legislation of the Republic of Kazakhstan. The structure of the University includes: Rectorate, 3 faculties, 1 business school, Center for Multidisciplinary Education, 8 departments, 12 research laboratories, 22 departments and structural subdivisions.

The University provides training of personnel in 55 educational programs, including 28 educational programs of Bachelor's degree, 20 educational programs of Master's degree, 7 educational programs of PhD doctoral studies.

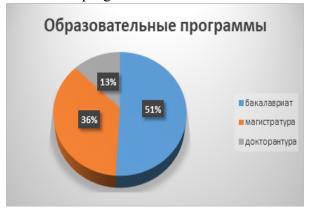


Figure 1: The percentages of educational programs at the University

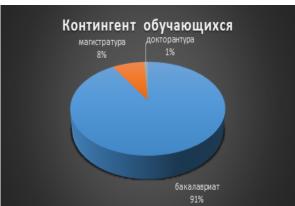


Figure 2: Percentage of students at the University

The contingent of students at the beginning of academic year 2021-2022 is 7356 people, namely 6706 students on Bachelor's degree programs, 583 students on Master's degree programs and 67 students on Doctoral degree programs.

Over the past five years there has been a steady increase in enrollment at the University, namely undergraduate programs from 2065 to 6706 students, graduate programs from 138 to 583 students, doctoral programs from 2 to 67 students.

The SDU has a trilingual education system, according to which 62% of its educational programs are taught in English, 20% are taught in Kazakh, and 18% are available in English, Kazakh or Russian

The educational programs 6B06102 Computer Science, 7M06102 Computer Science and 8D06102 Computer Science are provided by highly-qualified teaching staff: 3 PhDs, 38 PhDs and 44 MSc

## (IV) DESCRIPTION OF THE PREVIOUS ACCREDITATION PROCEDURE

Educational programs 6B06102 Computer Science, 7M06102 Computer Science, 8D06102 Computer Science for external evaluation for compliance with the standards of primary specialized accreditation of educational program of higher and (or) postgraduate education (Ex-ante) for the first time.

## (V) DESCRIPTION OF THE EEC VISIT

The work of EEC was carried out on the basis of the Program of online visit of the expert commission on specialized accreditation of educational programs at Suleyman Demirel University in the period from December 13 to 15, 2021.

In order to coordinate the work of the EEC, a kick-off meeting was held on 10.12.2021, during which the members of the commission were allocated powers, the schedule of the visit was clarified, agreement was reached on the choice of examination methods.

To obtain objective information about the quality of educational programs and the entire infrastructure of the university, as well as to clarify the content of self-evaluation reports, meetings were held with the rector, vice-rectors, heads of departments, heads of departments, professors, students, graduates and employers. Total of 63 persons participated in the meetings (Table 1).

Table 1 Information about the employees and students who participated in the meetings with the EEC of the IAAR:

Category of participants	Number of participant
Rector	1
Vice-Rectors	4
Heads of departments, heads of academic departments, coordinators of educational programs	20
Teachers	4
Students, undergraduates, doctoral candidates	16
Alumni	18
Total	63

The EEC of the NAAR met with the university's target groups to clarify the mechanisms for implementing the university's policies and to concretize certain data presented in the self-evaluation report of the university in accordance with the approved program of the visit, in

compliance with the established timeframes. On the part of the staff of Suleyman Demirel University all the persons mentioned in the annexes to the program of the visit were present. Members of EEC visited the classes of students according to the approved schedule of classes:

- discipline on the bachelor's program "Gamedesign" (Lecturer: senior lecturer Murat Urmanov);

the discipline on the bachelor's program "Electronics 2" (Lecturer: Fr. Əliya Zhynis, speciality 6B06102 - "Computer science", course 2, the lesson was held online: https://onlinesdu.webex.com/onlinesdu/j.php?MTID=m633ae9f20d938b81ab69c9f1dd7a 97de).

Members of EEC visited the objects, which are the bases of practice. So, a visit to the Chocolife and Elefanto practice bases was organized:

- Roman Andreev, director of the IT department and Suleiman Demirel 2018 graduate named Alibek, met at Chocolife.
- Rasul Mashurov, the founder of the company, also 10 SDU graduates met at Elefanto.

The activities planned during the visit of the IAAR EEC facilitated the experts' detailed acquaintance with the educational infrastructure of the university, material and technical resources, teaching staff, representatives of employers' organizations, students and graduates. This allowed the members of the EEC of the IAAR to conduct an independent assessment of the compliance of the data presented in the reports on self-evaluation of the University educational programs with the criteria of the IAAR specialized accreditation standards.

In accordance with the accreditation procedure, online questionnaires were held for 155 teachers and 423 students.

In order to confirm the information presented in the self-evaluation report, the external experts requested and analyzed the working documentation of the university. At the same time, the experts studied the Internet positioning of the university through the official website of the university (www.sdu.edu.kz.).

As part of the planned program, the recommendations to improve the accredited educational programs of Suleyman Demirel University, developed by the EEC based on the results of the examination, were presented at the meeting with the management on 15.12.2021.

# (VI) COMPLIANCE WITH STANDARDS OF SPECIALIZED ACCREDITATION

## 6.1. Standard «Management of Educational Program»

- ✓ The university must demonstrate the development of the goal and development strategy of the EP based on the analysis of external and internal factors with the wide involvement of various stakeholders
- ✓ The quality assurance policy should reflect the relationship between research, teaching and learning
- ✓ The university demonstrates the development of a culture of quality assurance
- ✓ Commitment to quality assurance should apply to any activity performed by contractors and partners (outsourcing), including the implementation of joint / double degree education and academic mobility
- ✓ The management of the EP ensures the transparency of the development plan for the development of the EP based on an analysis of its functioning, the real positioning of the university and the focus of its activities on meeting the needs of students, the state, employers and other stakeholders
- ✓ The EP management demonstrates the functioning of the mechanisms for the formation and regular revision of the EP development plan and monitoring its implementation, assessing the achievement of learning goals, meeting the needs of students, employers and society, making decisions aimed at continuous improvement of the EP
- ✓ The management of the EP should involve representatives of stakeholder groups, including employers, students and teaching staff in the formation of the EP development plan
- ✓ The EP management must demonstrate the individuality and uniqueness of the EP development plan, its consistency with national development priorities and the development strategy of the educational organization
- ✓ The university must demonstrate a clear definition of those responsible for business processes within the EP, the distribution of staff duties, and the delimitation of the functions of collegial bodies
- ✓ The management of the EP ensures the coordination of the activities of all persons involved in the development and management of the EP, and its continuous implementation, and also involves all interested parties in this process

- ✓ The management of the EP must ensure the transparency of the management system, the functioning of the internal quality assurance system, including its design, management and monitoring, and the adoption of appropriate decisions
- ✓ The management of the EP must carry out risk management
- ✓ The management of the EP should ensure the participation of representatives of interested parties (employers, teaching staff, students) in the collegiate management bodies of the educational program, as well as their representativeness in making decisions on the management of the educational program
- ✓ The university must demonstrate innovation management within the EP, including the analysis and implementation of innovative proposals
- ✓ The management of the EP must demonstrate its openness and accessibility for students, teaching staff, employers and other interested parties
- ✓ The management of the EP confirms the completion of training in education management programs.
- ✓ The management of the EP should strive to ensure that the progress made since the last external quality assurance procedure is taken into account in preparation for the next procedure

## The proving part

Suleyman Demirel University has developed and approved the Quality Policy and Quality Objectives, as well as the Quality Assurance Guidelines (link), which reflect the general approaches, key principles and basic mechanisms established in SDU to ensure quality and development of a culture of continuous quality improvement The policy is part of strategic management and is considered together with other documents: mission, strategic plan, academic policy and internal regulatory documents of the University.

The system of quality assurance and improvement is synchronized with the University strategy, defines the concept of quality, shared by all stakeholders and provides a conceptual framework for procedures to ensure and improve the quality of education.

The internal quality assurance system was developed and implemented based on ST RK ISO 9001-2016. The University passed the certification of the quality management system in relation to educational activities for compliance with the requirements of ST RK ISO 9001-2016 on the basis of an agreement with LLP "Business Expert KZ" in 2017. The University is responsible for the quality of education and its provision. Quality assurance supports the development of quality culture. Quality assurance takes into account the needs and expectations of students, other stakeholders and society. Quality assurance and quality improvement are applied to all educational programs implemented by the university.

SDU's Quality Policies and Objectives are implemented through internal quality assurance processes that involve all units of the university. Quality Policies and Objectives are available to the general public on the university website (link).

Compliance with the goal of the "State Program of Education Development of the Republic of Kazakhstan for 2011-2020" - "Increasing the competitiveness of education" - is implemented by fundamental and applied works on the topics of research and R&D in the field of research of current problems of translation studies and intercultural communication.

The quality of educational services provided by the university is systematically confirmed by the results of external quality assessment procedures of the university and educational programs. The University participates on a regular basis in the NACO, IAAR and Atameken ratings.

The uniqueness of the implementation of EP 6B06102 Computer Science, 7M06102 Computer Science, 8D06102 Computer Science SRU is a learning and teaching strategy (L&T) which is built on five pillars:

- Intellectual freedom, a valuable aspect of the chosen approach to teaching and research
  activities, is equally important to the free exchange of ideas. Students are motivated to
  manage their learning.
- Continuous improvement characterizes all aspects of the SDU, including the method of instruction, curriculum creation, and modernization.
- Place-based learning the learning process is no longer limited to a single classroom, fostering a supportive environment for blended learning and the development of experiences in a variety of learning situations.

- Learning in English SDU's reputation is built on providing quality and holistic education in English.
- Quality Control SDU has a comprehensive system of quality control recognized by the international community.

The uniqueness of EP 6B06102-Computer Science, 7M06102-Computer Science, 8D06102-Computer Science lies in the fact that they are focused on the competence approach in terms of modern approach in the field of ICT.

The uniqueness of EP 6B06102-Computer Science is ensured by obtaining profound theoretical knowledge and practical skills in implementation (IT tasks). It allows students to work practically in all spheres of IT technologies application such as information security, big data analytics, software development. Graduates of this program can occupy leading positions in IT departments of any company.

The uniqueness of EP 7M06102 Computer Science lies in the training of highly qualified personnel capable of efficiently solving market problems at the enterprise using a wide arsenal of methods, technologies, algorithms and approaches, the application of various methods and algorithms and the development of students' personal qualities, formation of general cultural and professional competencies in accordance with the requirements of the MES RK.

The uniqueness of EP 8D06102 "Computer Science" is ensured by the possibility of application of advanced scientific methods and technical means necessary for operative solution of problems of research in the field of Computer Technologies; trends and directions of IT technologies; design, research, innovation activities in the field of data science; principles of organization of management processes, modern scientific and practical problems of management, economy and social policy, psychological and pedagogical methods

Students in the EP have the opportunity to take a number of in-service courses in a special professional Beta-Career program (link 1, link 2), which gives students the opportunity to work in software companies. A key feature here is that Beta-Career equates to 12-credit courses, and students are evaluated by a company representative.

The university pays special attention to the development of EP supervisors. From time to time executives are sent to foreign countries to exchange experiences. For example, in January 2020 faculty deans visited European countries (Czech Republic, Poland, Germany) to exchange experiences. The head of the Department of Computer Science visited Spain in Barcelona for advanced training "CISCO Connect 2020" 27.01-02.02.2020. Dean of the Faculty of Engineering and Natural Sciences was on a visit to Portugal Coimbra for advanced training at the University of Coimbra 01-14.11.2019.

#### Analytical part

The University has an internal quality assurance system certified on the basis of the standard RK ISO 9001-2016. In 2017, the University passed the certification of quality management system in relation to educational activities in accordance with the requirements of ST RK ISO 9001-2016 (link) on the basis of an agreement with LLP "Business Expert KZ". Also courses were conducted on the program: "Internal auditor" Quality Management Systems in accordance with the requirements of ST RK ISO 9001-2016/ISO 9001-2015 and GOST ISO 19011-2013 Guidelines for auditing management systems". However, it is worth noting that the management systems certificate is issued for only 3 years, respectively, lost its force in 2020.

The educational process and research activities of the teaching staff and students in the cluster are related to the priority areas of science development, driven by the needs of the region, correspond to the priorities of national policy, goals and objectives of the Programs, but it should be noted that some of them have lost relevance:

State Program of Education Development of the Republic of Kazakhstan for 2011-2020";

Program for the Formation and Development of National Innovation System of Kazakhstan for 2005-2015 - Repealed by the Government of Kazakhstan on April 14, 2010 № 302

Action Plan for Implementation of the State Program of Education and Science Development of the Republic of Kazakhstan for 2020-2025, approved by the Government of Kazakhstan on

December 26, 2019 № 981 - The program for 2020-2025. Obsolete by the Government of Kazakhstan on 12.10.2021 № 726.

The accredited EPs are reviewed by the Quality Assurance Commission of the Faculty of Engineering and Natural Sciences (Minutes № 9 of April 20, 2021), but the expected result of these reviews is not sufficiently reflected.

Development and maintenance of the quality culture is provided through the development and implementation of the Internal Quality Assurance Policy based on ESG standards" however the process of ESG recommendation application is not fully indicated in the report.

According to the results of the anonymous questionnaire of the teaching staff conducted by the EEC experts on the evaluation of the accessibility and responsiveness of the management:

- 62.2% "very good";
- 2.6% "relatively poor";

In general, the accessibility and responsiveness of the university management among students are "fully satisfied" - 62.9% of respondents, "dissatisfied" - 5.7%.

#### Strengths / best practices:

- availability of mechanisms for formation and regular revision of EP development plan and monitoring of its implementation, assessment of achievement of learning objectives, compliance with the needs of students, employers and society, making decisions aimed at continuous EP improvement;
- Clear definition of those responsible for business processes within EP, unambiguous distribution of staff responsibilities, delineation of functions of collegial bodies;
- evidence of readiness to openness and accessibility for students, faculty, employers and other stakeholders.

#### Recommendation of the EEC:

Increase the number of stakeholders, including students, in the collegial bodies (Academic Committees) of educational programs management and develop mechanisms to take into account the opinions of stakeholders on the development of educational programs.

The conclusions of the EEC on the standard "Management of the educational program" EP 6B06102 Computer Science, 7M06102 Computer Science, 8D06102 Computer Science revealed 15 criteria, of which: 3 have a strong position, 12 have a satisfactory position.

#### 6.2. Стандарт «Управление информацией и отчетность»

- ✓ The university must ensure the functioning of the system for collecting, analyzing and managing information based on modern information and communication technologies and software
- ✓ The EP Guide demonstrates the systematic use of processed, adequate information to improve the internal quality assurance system
- ✓ The management of the EP demonstrates the existence of a reporting system that reflects the activities of all structural units and departments within the EP, including an assessment of their performance
- ✓ The university must determine the frequency, forms and methods for assessing the management of the EP, the activities of collegial bodies and structural divisions, top management
- ✓ The university must demonstrate a mechanism for ensuring the protection of information, including determining the persons responsible for the reliability and timeliness of information analysis and data provision
- ✓ The university demonstrates the involvement of students, employees and teaching staff in the processes of collecting and analyzing information, as well as making decisions based on them
- ✓ The management of the EP must demonstrate the existence of mechanisms for communication with students, employees and other interested parties, including conflict resolution
- ✓ The university must ensure the measurement of the degree of satisfaction with the needs of students, teaching staff and staff within the framework of the EP and demonstrate evidence of the elimination of identified shortcomings
- ✓ The university must evaluate the effectiveness and efficiency of activities in the context of the EP
- ✓ The information collected and analyzed by the university within the framework of the EP should take into account: key performance indicators
  - dynamics of the contingent of students in the context of forms and types;—level of progress, students' achievements and expulsion

satisfaction of students with the implementation of the EP and the quality of education at the university availability of educational resources and support systems for students employment and career growth of graduates

- ✓ Students, teaching staff and staff must document their consent to the processing of personal data
- ✓ The management of the EP should contribute to the provision of the necessary information in the relevant fields of science

#### The proving part

Information is one of the most important resources of the University. It is the source data for the provision of educational services, analysis and planning of the University. The main channels of information transfer at the University are the official website of the University, the University portal UniPort, Enroll (online registration), SIS (Student Information System), SR (StudentRegistration), social networks (personal account of the University on Instagram and Telegram Channel) and the media.

Data is collected through an online portal and begins as soon as students enroll. All information necessary for future analysis is entered into the portal. The university has developed an online Enroll registration form that is completed by applicants upon admission. The platform is designed in two versions: for foreigners and for citizens of Kazakhstan. After completing the registration data goes to the program SR (StudentRegistration). It stores personal information of each student, their data on education, age, etc.

To manage the educational process at the University there is a portal UniPort. This system provides full information about the learning process of each student for the entire period of study. Records of academic progress in all disciplines are kept, GPA (general and by subject) is indicated, and all orders are posted. In the portal the schedule is created, registration for the disciplines is held, the academic calendar is displayed. Students have access to their grades, transcript and attendance.

Each information resource (pms.sdu.edu.kz for faculty and administrative staff, my.sdu.edu.kz for students) has a login and password, without independent registration. For example, if HR department hired an employee, or COE accepted a new learner, they create an account in the HR and SR modules, respectively. This data is automatically synchronized with the portal. All trainee and employee data is available only within the corporate portal, and access to any data, including personal data, is allocated according to existing roles.

#### Analytical part

On the analysis of compliance with the criteria of the standard "Information Management and Reporting" in the accredited areas, the Commission notes the following: the information given in the Report fully reflects the state of EP information management and reporting.

The process of internal quality assurance (assessment of the degree of satisfaction of the needs of the teaching staff and personnel) is implemented in the form of a survey, which involves all stakeholders. "Reports of all structures of the University are maintained through the local document management system DMS. The final decision on the reports is made by the Head of each Department (if related to the University administration) and Deans of Faculties. Deans or Heads of Departments report to senior management during the Rector's Meeting" but the expected outcome of improvement based on this process is not spelled out.

During the review of student transcripts and during the interviewing of the teaching staff and developers of OP 6B06102 Computer Science, it was noticed that the EP does not provide for the development of the additional educational program (Minor) by the students.

The contingent of students in the program consists of 880 students, including 745 undergraduate students, 119 graduate students and 16 doctoral students.

According to the results of the questionnaire, 40.6% of the students answered "very good", 56.1% "good", 1.9% "relatively bad" and 0.6% "bad" to the question about the assessment of teaching staff involvement in the management and strategic decision-making process.

#### Strengths / best practices in accredited EPs:

Availability of mechanisms to involve students, employees and teaching staff in the processes of information collection and analysis, as well as decision-making based on them;

The information supposed to be collected and analyzed in the framework of EP takes into account:

- the dynamics of the contingent of learners in the context of forms and types;
- the satisfaction of students with the implementation of EP and the quality of education in the university;
- accessibility of educational resources and support systems for students

#### Recommendation of the EEC:

Provide for the possibility of students to master additional educational programs (Minor).

Conclusions of the EEC on the standard "Information Management and Reporting" EP 6B06102 Computer Science, 7M06102 Computer Science, 8D06102 Computer Science disclosed 16 criteria, of which: 4 have a strong position and 12 have a satisfactory position.

## 6.3. Standard «Development and Approval of the Education Program»

- ✓ The HEI must demonstrate the existence of a documented procedure for the development of the EP and its approval at the institutional level
- ✓ The HEI must demonstrate the compliance of the developed EP with the established goals and planned learning outcomes
- ✓ The management of the EP should determine the influence of disciplines and professional practices on the formation of learning outcomes
- ✓ The HEI demonstrates the existence of a EP graduate model that describes learning outcomes and personal qualities
- ✓ The qualification awarded upon completion of the EP must be clearly defined, explained and correspond to a certain level of the NSC, QF-EHEA
- ✓ The management of the EP must demonstrate the modular structure of the program based on ECTS, ensure that the structure of the content of the EP corresponds to the goals set, with a focus on achieving the planned learning outcomes for each graduate
- The management of the EP must ensure that the content of academic disciplines and learning outcomes correspond to each other and the level of education (bachelor's, master's, doctoral studies)
- ✓ The management of the EP must demonstrate the conduct of external reviews of the EP
- ✓ The management of the EP must provide evidence of the participation of students, teaching staff and other stakeholders in the development and quality assurance of the EP
- ✓ The EP management must demonstrate the uniqueness of the educational programme, its positioning in the educational market (regional/national/international)
- ✓ An important factor is the possibility of preparing students for professional certification
- ✓ An important factor is the presence of a joint (s) and/or two-degree EP with foreign HEI

#### Proving part

The determination of higher education outcomes is determined on the basis of their alignment with the Dublin Descriptors at undergraduate, graduate and doctoral levels, the National Qualifications Framework and professional standards. The Internal Quality Assurance Policy defines the general approaches, basic principles and key mechanisms in the development of educational programs. Within the framework of the Internal Quality Assurance System and the implementation of the standard for the development of educational programs of the university, it is important to note that the university independently designs programs in accordance with the national and industry qualifications framework, as well as takes into account the requirements of professional standards. Educational programs of all levels are focused on learning outcomes.

Educational programs are formed according to the modular principle. Each module of an educational program is focused on achieving a certain learning outcome, i.e. competence.

Learning outcomes are formulated for the program as a whole, for each module and separate discipline.

In the development of the EP of the cluster in order to achieve the planned learning outcomes involved FPU, students and strategic partners of the Advisory Board. Members of the Advisory Board are annually updated and approved at the Faculty meeting. EP is developed in the language of instruction.

Development of the working curricula (WTC) takes place on the basis of the SOSE RK, the catalog of elective disciplines CED, developed by the graduate department of the university and the individual study plans of students (IEP). Working curricula for required disciplines (syllabuses) are developed on the basis of model curricula approved by the MES RK. In the case of their absence, teaching staff independently develop working curricula (syllabuses), teaching and learning material is developed, based on the internal regulatory document - the Rules for the development and design of the curriculum.

An important part of the process of developing an educational program is to define a set of competencies and learning outcomes. The set of competences is formed by 2 types of competences, such as general cultural and professional competences.

Achievement of the objective of EP 6B06102 Computer Science training in the field of computer science such as software developers, software project managers, data engineers, data processing specialists, software testers, UX/UI specialists, IoT engineers and many other professions in the field of IT is performed through achievement of learning outcomes and formation of hardskills and softskills.

Learning outcomes correlate with the EP objective, so for example, understanding the basics of programming, creating computational machines, algorithms and data structures, web applications, mobile applications using modern development tools, frameworks, understanding computer architecture, and creating programs for computational machines with limited resources are aimed at achieving EP objective 6B06102 Computer Science.

Achievement of EP 7M06102 Computer Science objective execution of research projects using analytical tools for data analysis and automation of various processes in industrial level projects is accomplished through achievement of learning outcomes, in particular, use of various IT tools using programming skills to automate various processes using industry recognized technology labs, creation, critical evaluation and proposals for practical implementation of innovations The formation of hardskills and softskills, are achieved in the course of teaching the EP disciplines "Pattern Recognition Models and Algorithms", "Natural Language Processing", "Advanced Digital Circuitry", "Data Collection, Processing, Analysis and Visualization", "Advanced Programming Technology", "Computer Vision and Image Analysis", etc.

Achievement of the goal of EP 8D06102 Computer Science of in-depth study of algorithms and computer systems, understanding the specifics of scientific papers and publishing research results oriented at the international level in internationally recognized journals is accomplished by achieving learning outcomes such as the ability to demonstrate a deeper understanding of algorithms and programming through various projects, applying algorithms to a real problem and creating learning models through obtaining, cleaning, analysis and viz Development of advanced technologies based on their performance criteria, conducting a literature review and critique of scientific publications to prepare a paper, progress report and presentations are provided in the disciplines "Big Data Analytics", "Introduction to Cyber Security", "Pattern Recognition Models and Algorithms", etc.

According to the recommendations of employers and representatives of practice bases, as well as students, elective disciplines such as Programming Patterns, Security in 2019-2020 academic year Leadershipin IT were introduced in the CED on EP 6B06102 Computer Science 2018-2019 academic year; on 7M06102 Computer Science "Advanced Application and Network Security" and 8D06102 Computer Science "Information Security" were proposed to supplement the course content.

Educational practice takes place for the students of the first years without discontinuing the studies within separate disciplines under the direction of the leading teachers with visiting of practice bases.

Production and pre-graduation internships take place at internship bases on the basis of contracts, the process is coordinated by the graduating departments together with the Department of Graduate and Career Development.

Graduate model, key professional competencies and requirements for graduates are repeatedly discussed during round tables and meetings with employers held at the University as part of the Job Fair, Advisory Board meetings, as well as during professional practice of students at work. The Advisory Board consists of experts - leading teachers of the university, lecturers, heads of other universities and experts in practice on the profile: top managers of IT companies, business structures and educational institutions, as well as successful graduates of the university. For example, the Faculty of Engineering and Natural Sciences attracted as external experts representatives of the company BSDNB, Mobile Development Department, Palm-EU LLP, SVA company, Amazon AWS, Power WiFi company, Open it Association, JSC Kcell, Tinker Tech, etc.

For some certificates, the University provides a free or discounted voucher for the certification exam. Within the framework of SDU CISCO Academy, 300 students have been trained and received certificates. SDU AutoDesk Academy awarded certificates to 40 students ZhanatAbdusakhina, (BekzatSeraliev. Nurdaulet Omirbek, Nazerke Nazarkulova. FurkenDemirel, Dias Omarov, Azhar Ilyasova). SDU ORACLE Academy prepared 4 students to certificate (MustakhovTaukehan, ORACLE TelmanDuman, MugalievErnur. TuleugaliyevNurbek). Within CourseraforCampus this year 2,383 participants registered, 1,063 completed at least one course, and a total of 2,175 certificates from Coursera were received. In addition to students, Coursera for Campus was also attended by University faculty.

## Analytical part

The Commission notes: the stages and mechanisms of development of EP, the approaches that guide the university in the management of EP, but there is no clarity and uniqueness in demonstrating the existence of a documented procedure for the development of the educational program, not specified Objectives of EP and the procedure for involvement of the business community in the development of EP, as well as, the achievement of the planned learning outcomes by students.

SDU maintains close ties and has agreements with many leading universities and research centers of Kazakhstan and foreign countries in the field of education, which provides for the implementation of academic mobility of faculty and students, joint research, however, there are no joint and double degree educational programs and placement of information on them on the website.

Questioning of students, conducted during the visit of EEC IAAR, showed that: the level of responsiveness to feedback from teachers on the educational process is fully satisfied - 63.6%, partially satisfied - 27.4%, partially unsatisfied - 5.9%.

The survey of the teaching staff showed that the attention of the management of the educational institution to the content of the educational program is "very good" - 67.1%, "good" - 32.9%.

#### Strengths/best practice

- availability of the developed graduates' models describing the learning outcomes and personal qualities;
- conducting external expertise of the EP content and planned results of its implementation.

#### Recommendation of the EEC

In the structure of the EP should be provided various types of activities that ensure the achievement by students of the planned learning outcomes by September 1, 2022.

Ensure the publication of information on changes in educational programs on the official website of the University.

The EEC conclusions on the standard "Development and approval of the educational program" OP 6B06102 Computer science, 7M06102 Computer science, 8D06102 Computer science revealed 12 criteria, of which: 2 - have a strong position, 9 - have a satisfactory position and 1 position suggests improvement.

#### 6.4. Standard «On-Going Monitoring and Periodic Review of Educational Program»

- ✓ The HEI must ensure the revision of the structure and content of the EP, taking into account changes in the labor market, the requirements of employers and the social demand of societyThe HEI must demonstrate the existence of a documented procedure for monitoring and periodic evaluation in order to achieve the goal of the EP and continuously improve the EP
- **✓** *Monitoring and periodic evaluation of the SP should consider:*
- ✓ the content of the program in the context of the latest achievements of science and technology in a particular discipline
- ✓ changes in the needs of society and the professional environment
- ✓ load, progress and graduation of students
- **✓** effectiveness of student assessment procedures
- ✓ needs and degree of satisfaction of students
- ✓ compliance of the educational environment and the activities of support services with the goals of the EP
- ✓ The management of the EP should publish information about changes to the EP, inform interested parties about any planned or undertaken actions within the EP
- ✓ Support services should identify the needs of various groups of students and the degree of their satisfaction with the organization of training, teaching, assessment, mastering the EP as a whole

#### **Proving Part**

Monitoring and periodic evaluation of educational programs are aimed at achieving the goals and full formation of the planned learning outcomes.

During the monitoring of EP evaluates the relevance of EP, the implementation of the goal and objectives set by EP, the logic of building EP, students' achievement of learning outcomes and their compliance with the requirements of professional standards, etc. Monitoring is conducted to determine the compliance of EP components - its purpose, content, teaching and learning methods, learning outcomes, its compliance with the established requirements, how it meets the needs of stakeholders.

The presence of practice-oriented disciplines in the EP also ensures quick adaptation of students in the professional environment. Therefore, the university pays special attention to various types of internships. The University guarantees that the activities carried out by the students during the internship correspond to the forthcoming professional activity. This is ensured by an extensive practice base for each EP.

EPs are also monitored through extended department meetings and open presentations with the participation of external experts, employers in order to make adjustments to the content of EP 6B06102 Computer Science, 7M06102 Computer Science and 8D06102 Computer Science. Each department has an Advisory Board whose members meet periodically to review the OP, review new technologies in the industry, recent advances in various fields of science, and make recommendations to identify risks and ways to address them (Appendix 4.5).

When discussing the elective courses with the requirements of the modern labor market, accredited OP with the participation of external experts in the field of IT industry, the director of "Kcell" company - Anzor Gekhoevich Israilov, CEO of TENET company - German Konstantinovich Ilyin, IT manager of "Toyota Motor Kazakhstan" LLP - Zhomart Aldamuratov, "Intervale company" - Badirsha Bayramov, CEO of Power WI-FI - A.Tkachenko were invited.

The high level of organization of educational process with the latest achievements of science is the most important priority in the activities of teaching staff.

Monitoring and evaluation of the educational environment is conducted annually to update the material and technical base, educational and methodological support and its compliance with modern technologies and methods of providing educational services.

#### Analytical part

The data presented in the Report on the monitoring and periodic evaluation of the educational program is quite voluminous. However, the Commission notes that the fact of questioning by teachers after classes, at the end of the academic semester or year is not objective enough. Whether the dependent students give a sufficiently correct assessment.

Information about the approval of working groups/committees that check the content of syllabuses and the results of which should be published/reported to stakeholders is not confirmed. The mechanisms of innovation management within the educational program are not sufficiently disclosed.

According to the results of the survey the level of availability of guidance to students: fully satisfied - 62.9%, partially satisfied - 28.1%, not satisfied - 5.7%.

#### Recommendations of the EEC

To develop mechanisms to manage innovations in the educational program and their introduction in the educational process.

The conclusions of the EEC on the standard "Continuous monitoring and periodic evaluation of educational programs" EP 6B06102 Computer Science, 7M06102 Computer Science, 8D06102 Computer Science revealed 10 criteria, of which: 9 have a satisfactory position and 1 position suggests improvement.

#### 6.5. Standard «Student-Centered Learning, Teaching and Performance Evaluation»

- ✓ The management of the EP should ensure respect and attention to various groups of students and their needs, providing them with flexible learning paths
- ✓ The management of the EP should ensure teaching based on modern achievements of world science and practice in the field of training, the use of various modern methods of teaching and evaluating learning outcomes that ensure the achievement of the goals of the EP, including competencies, skills to perform scientific work at the required level
- ✓ The management of the EP should determine the mechanisms for distributing the teaching load of students between theory and practice within the framework of the EP, ensuring the mastery of the content and achievement of the objectives of the EP by each graduate of a procedure for responding to complaints from students.
- ✓ An important factor is the availability of own research in the field of teaching methods for the disciplines of the EP
- ✓ The HEI must ensure that the procedures for evaluating learning outcomes are in line with the planned results and goals of the EP
- ✓ The HEI must ensure the consistency, transparency and objectivity of the mechanism for assessing the learning outcomes of the EP, the publication of criteria and assessment methods in advance
- ✓ Assessors should be proficient in modern methods for assessing learning outcomes and regularly improve their skills in this area
- ✓ The EP management must demonstrate the existence of a feedback system on the use of various teaching methods and the assessment of learning outcomes
- ✓ The management of the EP must demonstrate support for the autonomy of learners while providing guidance and assistance from the teacher
- ✓ EP management must demonstrate the existence of a procedure for responding to student complaints.

#### Proving part

The SDU implements student-centered learning processes in educational programs: ensures the development of flexible learning trajectories; creates conditions for increasing students' motivation and involvement in the learning process; ensures consistency and objectivity of learning outcomes assessment.

Formation of individual educational trajectories is carried out on the basis of the Academic Policy and CED, which contains a list of all the disciplines of the component of choice with the purpose of study, brief content and expected learning outcomes. Planning the educational trajectory (enrollment in disciplines) is carried out in accordance with the academic calendar. Learners in the framework of the educational program have ample opportunities in the formation of an educational trajectory through an individual curriculum. The student builds his/her own educational program in the form of ISP.

Individual educational trajectory of students is formed on the basis of compulsory and elective components of the educational program. Students of EP have full information about the list of module disciplines and their codes, prerequisites, goals and content. Students are informed about the form of control and necessary learning tools, as well as the main learning outcomes. The registration procedure for the disciplines of choice of specialties is organized by the department (office) of the registrar in electronic form with the methodological and advisory assistance of the departments and eduizers.

The university successfully operates the institute of Edvisers for individual assistance to the student. Edvisers conduct advisory and methodological work with students regarding the choice of educational trajectory, disciplines and teachers a month before enrollment. The Edviser supervises learners throughout the entire period of study.

Fundamental to the implementation of these tasks is the mastery of interactive teaching methods. The introduction of various innovations saves time checking exams, prevents attempts to cheat (online cuisines), eliminates the need to transfer lectures and homework from storage media (Google Drive &Dropbox), track the timely delivery of assignments (centralized e-mail database).

#### Analytical part

Analyzing the standard "Student-centered learning, teaching and learning assessment" in the accredited areas, the Commission came to the conclusion that, within the framework of the implemented EP, the use of modern information technologies, interactive teaching methods is observed, while not enough use of own research results in the field of teaching methods of EP disciplines was noted. Teachers independently determine teaching methods, using a wide range of tools for professional learning and assessment of students' success. The teachers of the Department of Computer Science demonstrated their methods of teaching disciplines and assessing students' knowledge of the disciplines, assessments are based on the content, established goals and results of specific professional training, but the syllabuses do not reflect the criteria for evaluating the disciplines, only the table of assessments is indicated.

The report describes the process of appeal and complaints on the interim control, and during the visit of the Faculty of Engineering and Natural Sciences VEK familiarized with the results of the appeals committee and reviewed the minutes of the meetings of the appeals committee.

The questioning of the students, conducted during the visit of the EEC, showed that the students are "completely satisfied":

the general quality of curricula -70,2 %; the quality of teaching -70,4 %; fairness of exams and attestation -74%; Timeliness of the evaluation of the students - 58,9 %; the tests and examinations -62,6 %.

#### Strengths/Best Practices

Using of various forms and methods of teaching and learning.

#### Recommendations of the EEC.

To take measures to organize the development of their own research in the field of teaching methodology of academic disciplines of EP until September 1, 2022.

To include policies and criteria for evaluating the knowledge of students in the curricula (syllabuses) of the University.

Conclusions of the EEC on the standard "Student-centered learning, teaching and assessment of learning" EP 6B06102 Computer Science, 7M06102 Computer Science, 8D06102 Computer Science disclosed 10 criteria with 1 strong, 8 -satisfactory positions and 1 position suggests improvement.

#### 6.6. Standard «Students»

- ✓ The HEI must demonstrate the policy of forming a contingent of students and ensure transparency, publicity of the procedures governing the life cycle of students (from admission to completion)
- ✓ The management of the EP should provide for special adaptation and support programs for newly enrolled and foreign students
- ✓ The HEI must demonstrate the compliance of its actions with the Lisbon Recognition Convention, including 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 education
- ✓ The HEI must provide an opportunity for external and internal academic mobility of students, as well as assist them in obtaining external grants for study
- ✓ The university should encourage students to self-education and development outside the main program (extracurricular activities)
- ✓ An important factor is the existence of a mechanism to support gifted students
- ✓ The HEI must demonstrate cooperation 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
- ✓ The HEI must provide students with internship places, demonstrate the procedure for facilitating the employment of graduates, maintaining contact with them
- ✓ The HEI must demonstrate the procedure for issuing documents to graduates confirming the qualifications received, including the achieved learning outcomes
- ✓ The EP management must demonstrate that program graduates have skills that are in demand in the labor market and that these skills are really relevant
- ✓ The management of the EP must demonstrate the existence of a mechanism for monitoring the employment and professional activities of graduates
- ✓ An important factor is the presence of an active alumni association/union

#### Proving part

In order to implement a systematic policy for the formation of the contingent of students the University carries out a set of measures to ensure the image of the University in the region and the republic as a whole. The current management system is reflected in the strategic development plan of the University and is based on continuous monitoring to improve the quality of the educational and educational process. Determination of professional orientation and professional qualities of applicants is a key aspect of the contingent formation policy for all EPs of SDU.

Effective forms of career guidance at the university include: the provision of internal grants to the SDU, as well as a flexible system of discounts for the entire period of training for students who won prizes in the traditional subject Olympiad SPT held by the SDU in all regions of Kazakhstan every April with the participation of over 8,000 schoolchildren of RK schools annually.

The SDU Technopark is a special platform for supporting gifted students, which aims to develop innovative skills by working on startups. Beginning in 2019, an innovative discipline was introduced that engages gifted students from the SDU Business School and the Faculty of Engineering and Natural Sciences. The discipline is designed for two academic semesters: in the first semester students study a certain industry, in the second semester they develop a startup that solves a problem of a certain industry.

Positive statistics of the students' contingent is given.

There is an adaptation program for international students, which includes a set of measures of socio-psychological and academic support, operates a cabinet of psychological counseling, as well as preparatory courses are organized on the basis of the faculty "Foundation".

To guarantee objective recognition of higher education qualifications, periods of study and prior education, including the recognition of non-formal education, the university ensures compliance with the Lisbon Recognition Convention actions cooperates with the Center of the Bologna process and academic mobility MES RK, which is the executive body for the recognition and nostrification procedure in the Republic of Kazakhstan. In accordance with the paragraphs of the Lisbon Convention at the University is working on the recognition of mastered courses and credits in the academic mobility. Recognition of prior achievements, learners are stipulated in the Regulations: Learning by credit technology, Admission of learners and in the Academic policy. Also, since 2016, the university gives graduates a European Diploma Supplement (Diplomasupplement) in three languages (Kazakh, Russian and English), which meets the recommendations of the Council of Europe and UNESCO on the standard of the Bologna Process. In the Diploma Supplement all passed credits of graduates is calculated on the ECTS automatically in the university portal SIS (student information systems).

Process of academic mobility of students of EP 6B06102/7M06102/8D06102 - Computer Science is provided by the Office of International Relations (OIR). The Office regularly conducts individual and group consultations on academic mobility issues. There is a database of undergraduate, graduate and doctoral programs of partner universities as well as a database of national and international scholarship programs created and available to students. In order to promptly notify students and faculty about academic mobility programs, the Office staff posts announcements on the main page of the official website of the university.

Students can independently choose another university (within the country or abroad), determine the list of disciplines to study and submit an application to the program coordinator. On the basis of applications, the program coordinator organizes the conclusion of a cooperation agreement with another university. On the basis of the official invitation of the partner university students prepare an individual curriculum and agree it with the head of the department.

Extracurricular development of students at the university is carried out through the organization of student government under the auspices of the Department of Social Work.Student life at the university covers more than 95% of all students in one way or another.Depending on the activities of the clubs, organization of one or another event, acting not only club members, but also all the willing students of the university.

The students of EP 6B06102 Computer Science, 7M06102 Computer Science, 8D06102 Computer Science have the opportunity to prepare for professional certification within the discipline: CISCO, ORACLE, RedHat, AutoDesk. The JavaEEadvancedprogramming disciplines will also include industry certifications. PERCo Security Control Systems Academy successfully operates and issues industrial security certificates from PERCo.

#### Analytical part

Thus, during the analysis of the submitted documents and by the results of the visit to the University, the members of the EEC note that the report does not indicate the work on the selection of international students. The process of providing grants and discounts for students is not described. The (%) involvement of the teaching staff in the career guidance work of the university is not indicated. Also, the Commission notes the lack of analysis on the results of interim certification.

As part of the EP there are no research projects of grant funding, as well as program-targeted funding. Doctoral students do not participate in the implementation of research projects. Consequently, the research work of 16 doctoral students on EP "8D06102 - Computer Science" and the output of doctoral students to defend doctoral dissertations are kept to a minimum.

Based on survey results: Students express complete satisfaction with the availability of academic advising (60.8%); the availability of health services (62.9%); the availability of library resources (70%); existing instructional resources (70.4%); and the student-teacher relationship (73%).

#### Strengths/Best Practices

The order of formation of the student body consists of:

- minimum requirements for applicants;
- maximum group size for seminar, practical, laboratory, and studio classes;
- forecasting the number of state grants;

EP management has demonstrated a willingness to conduct special adaptation and support programs for newly enrolled and international students and to provide internship placements for students, to promote graduate employment, and to maintain communication with them.

#### EEC Recommendation.

None

The conclusions of the EEC on the standard "Trainees" EP 6B06102 Computer Science, 7M06102 Computer Science, 8D06102 Computer Science revealed 12 criteria: of which 5 have a strong position, 7 criteria have a satisfactory position.

#### 6.7. Standard «Teaching Staff»

- ✓ The HEI must have an objective and transparent personnel policy in the context of the EP, including recruitment (including invited teaching staff), professional growth and development of staff, ensuring the professional competence of the entire staff
- ✓ The HEI must demonstrate the compliance of the qualitative composition of the teaching staff with the established qualification requirements, the strategy of the university, and the goals of the EP
- ✓ The management of the EP should demonstrate the change in the role of the teacher in connection with the transition to student-centered learning and teaching
- ✓ The HEI should provide opportunities for career growth and professional development of teaching staff, including young teachers
- ✓ The HEI must involve in the teaching of specialists from relevant industries with professional competencies that meet the requirements of the EP
- ✓ The HEI must demonstrate the existence of a motivation mechanism for the professional and personal development of teaching staff
- ✓ The HEI must demonstrate the widespread use of information and communication technologies and software in the educational process by the teaching staff (for example, on-line training, e-portfolio, MEPs, etc.)
- ✓ The HEI must demonstrate the focus on the development of academic mobility, attracting the best foreign and domestic teachers
- ✓ The HEI must demonstrate the involvement of each teacher in promoting a culture of quality and academic integrity at the university, determine the contribution of the teaching staff, including those invited, to achieving the goals of the EP
- ✓ An important factor is the involvement of teaching staff in the development of the economy, education, science and culture of the region and the country

#### Proving part

SDU has an objective and transparent personnel policy in the context of EP 6B06102 Computer Science, 7M06102 Computer Science, 8D06102 Computer Science.

Selection and formation of the teaching staff of the department "Computer Sciences" is carried out in the following ways:

training of its own personnel under the "Jas maman dayarlau" program - stimulation and training of graduates of the University and other Universities. Candidates who pass the competition on the program "Zhas maman dayarlau" are provided with internal grants for training in master's and doctoral programs, with mandatory subsequent work in accordance with the Rules of the program (link);

- Involvement of foreign employees under the programs of academic mobility, or in accordance with the laws of the Republic of Kazakhstan and the Regulation on foreign labor force recruitment
- Invitation of local teachers, invitation of famous professors from other universities on a
  part-time basis, attraction of specialists from the proposed field of industry for seminars
  conducted in accordance with the "Rules of Employees Hiring".

The quality of teaching faculty is assessed through open classes, mutual visits, student questionnaires, control of teaching materials posted on the platform Moodle. Questionnaire "Assessment of course and teaching" is conducted on a regular basis.

In accordance with the strategy of the University implemented "Performance Management and Professional Development System (PMDS - Performance Management Development system)". Each supervisor holds individual meetings with each of his/her subordinates at least once a year. The purpose of these meetings is to discuss and plan the professional development of the employee.

Especially necessary to note the existence of a system of motivation of professional and personal development, based on the Regulation of the SDU on bonuses for the faculty's professional certificates

In order to encourage the faculty to continuously improve the level of English, there is a system of surcharges to salaries from 15000 to 90,000 tg. for faculty who have passed the test and received a certificate confirming the level of English language skills (IELTS, TOEFL).

Scientific activity of the department is an indispensable part of the process of training specialists, teachers of the department constantly publish the results of their research in open journals (link). The main research activities are carried out in the departments of the university. Coordination of research activities is carried out by the Department of Science of the university.

The teaching staff of the department is actively involved in international grant programs, international scientific and practical conferences, forums.

In the period from 2017 to 2020, the teaching staff of the department received acts of implementation. For example, for 2018, the following results were implemented in the educational process: Baimuratov O.A., PhD, assistant professor "Unified network model of organization and management of healthy nutrition of schoolchildren of the Republic of Kazakhstan". Author's certificate № 0777, 16.03.2018 Astana, MJ RK; Baimuratov O. A., PhD, assistant professor. "Dabl". Author's certificate № 0831, 29.03.2018 Astana, MJ RK;Aitchanov B.Kh., PhD, professor. "Device for measuring the diameter of moving dielectric filaments". Patent № 3452, 28.11.2018 Astana, MJ RK. Aitchanov B.Kh., PhD, professor. "Device for measuring the pulling speed of dielectric filaments". Patent № 3400, 16.11.2018 Astana, MJ RK, etc.

#### Analytical part.

Within the framework of the accredited EP the EEC notes that the Department has a good potential for further staff development, but the description of the system of motivation of the eductors on the basis of evaluation of the performance of this category of staff of the University is unclear. The Commission notes the low staffing level (41%) of the teaching staff of Study Program 6B06102 - Computer Science, but there are teaching staff with foreign diplomas.

The teaching staff of EP does not participate in foreign and domestic scientific projects, which means that it has no funded program-targeted and grant funding. The management of the EP should work out the compliance of teaching staff in the implementation of R&D and supervision of doctoral students.

The survey of teaching staff, conducted during the visit of EEC IAAR, showed that the average % of satisfaction of teaching staff of the university is higher - 70.1%, except for some problems, which sometimes appear such as "Satisfaction:

- provision of benefits: recreation, sanatorium treatment, etc. 48,4%;
- remuneration conditions 66,5%;

- food system, medical and other services - 67,7.

#### Strengths/best practices

Responsibility of the EP management for their employees and ensuring favorable working conditions for them:

Opportunities for career growth and professional development of the teaching staff.

#### Recommendation of the EEC:

To consider the possibility of revising the personnel policy in order to disclose the motivational component to increase the rates of tenure of teaching staff and attract young staff.

Conclusions of VEC on the standard "Teaching staff" EP 6B06102 Computer Science, 7M06102 Computer Science, 8D06102 Computer Science disclosed 9 criteria, of which: 2 strong and 7 have a satisfactory position.

#### 6.8. Standard «Education Resources and Student Support Systems»

- ✓ The HEI must guarantee the compliance of the infrastructure, educational resources, including material and technical, with the goals of the educational program
- ✓ The management of the EP must demonstrate the sufficiency of classrooms, laboratories and other facilities equipped with modern equipment to ensure the achievement of the objectives of the EP
- ✓ The HEI must demonstrate the compliance of information resources with the needs of the university and the ongoing EP, including in the following areas:
  - technological support for students and teaching staff in accordance with educational programs (for example, online learning, modeling, databases, data analysis programs)
  - library resources, including a fund of educational, methodical and scientific literature on general education, basic and major disciplines on paper and electronic media, periodicals, access to scientific databases
  - examination of the results of research, final works, dissertations for plagiarism access to educational Internet resources
  - functioning of WI-FI on its territory
- ✓ The HEI must demonstrate that it creates conditions for conducting scientific research, integrating science and education, publishing the results of research work of teaching staff, staff and students
- ✓ The HEI should strive to ensure that the educational equipment and software used for the development of educational programs are similar to those used in the relevant sectors of the economy
- ✓ The management of the EP must demonstrate the existence of procedures for supporting various groups of students, including information and counseling
- ✓ The management of the EP must show the existence of conditions for the advancement of the student along an individual educational trajectory
- ✓ The HEI must take into account the needs of different groups of students (adults, working, foreign students, as well as students with special educational needs)
- ✓ The HEI must ensure that the infrastructure meets the safety requirements

#### Proving part

The University seeks to develop and implement educational, research, and scholarly programs in such a way that provides students with all the skills necessary for both professional growth and personal development. Respect for the intellectual potential and dignity of the student as an individual is paramount. All facilities and information resources are consistent with the activities, mission, vision, and strategy of the University. The SDU ensures that educational resources and student support services are sufficient, accessible, and appropriate for the purpose. In allocating, planning, and providing educational resources, the University considers the needs of diverse student populations.

Useful teaching space owned by the university by right of ownership meets the requirements of fire safety, qualification requirements for the activities of educational organizations and the requirements of the state general education standards, the specialties implemented.

Training and laboratory facilities and auditorium fund corresponds to the contingent of students and the implemented educational programs, sanitary and epidemiological norms and

requirements. The use of the auditorium fund is monitored with the help of the information and management system (IMS) "Auditorium Fund".

The University has canteens with 524 seats on the first and second floor and two VIP halls with 40 seats for receiving guests of the University. Also operate 2 cafeterias, 1 cafe and a summer terrace with 186 seats in total.

There is a dormitory - House of students, consisting of 4 blocks, designed separately for girls (A and B) and for boys (C and D). House of students is calculated on 1280 places, on each floor on 20 rooms, in each room lives no more than 4 people. On the second floor of Block A is a guest house of the University, the capacity - 35 people. The total area of the dormitory -19560,6 m2.

The official website of the University is used to inform wide target groups; it is the main communication channel of the university.

The university effectively operates various student support services (academic support, social support, technical support, material support), which are characterized by accessibility and relevance.

Academic support for students is provided by: Admissions Committee, Foundation Department, Student Services Center, Registrar's Office, Department of Professional Practice and Employment, Department of International Relations, Library.

Social support for students is provided by the Department of Educational Work, a sports club, health center, theater groups and musical associations.

Support for students at the university is also carried out by ensuring public order and protection of educational buildings and University dormitories, maintenance of physical facilities, the functioning of public catering in the academic buildings. There is a permit regime in the university.

There is a Student Service Center (SSC) in the University, which aims to provide fast and high quality services to the educational process on a "one-stop-shop" basis.

The Department of Graduate Services has developed a special mobile application SDU Connect (PlayMarket and Appstore) for graduates and 4th year students, which has a database of all graduates with all data, including the current place of work. This app has a "Jobs" tab where alumni and companies that have registered on the app can post jobs.

SDU Scientific Library operates from 9:00 to 18:00 without lunch break. Additional library hours are available during the testing and exam period if needed and requested by students. As part of the national subscription are available e-books, resources Elsevier(https://www.elsevier.com/),

Thomson

Reuters(https://www.thomsonreuters.com/en.html), SpringerLink (Home - Springer).

The University has 21 teaching laboratories, 10 of them in the Department of Computer Engineering such as, 3D Modeling and Visual Technologies Laboratory, Internet of Things, Cisco Networking Academy Laboratory, Microelectronics Laboratory and others.

#### Analytical part

The description of the standard presents the learning environment of the EP, including the material and technical equipment. There is information about the availability of high-speed communication, information system, laboratory and training equipment, library fund.

During the inspection of the facilities, the members of the EEC found that the university has all the necessary educational and material assets to ensure the educational process of the accredited educational programs. The university building, classroom and laboratory facilities, classrooms, sports facilities and other premises comply with the established, current sanitary standards and fire safety requirements, while the experts note that the university administration should continue to work to improve conditions for students with disabilities.

According to the results of the survey "Satisfaction of students:

- study rooms, classrooms for large groups 75.7%;
- classrooms for small groups 77.3%;
- rest rooms for students 57%;

- computer labs 66.2%;
- scientific laboratories 59,3%;
- dormitory -60.3%.

Faculty evaluates the availability of necessary scientific and educational literature in the library for teachers "Very good" - 47.1%, "Good" - 49%,

## Recommendations of the EEC

Develop a roadmap for the development of infrastructure for students with special educational needs by September 1, 2022.

PA leadership must demonstrate procedures in place to support diverse groups of learners, including information and counseling by September 1, 2022.

EEC conclusions on the standard "Educational Resources and Student Support Systems" EP 6B06102 Computer Science, 7M06102 Computer Science, 8D06102 Computer Science disclosed 9 criteria, of which 7 have a satisfactory position and 2 positions suggest improvement.

#### 6.9. Standard «Public Information»

- ✓ The HEI guarantees that the published information is accurate, objective, up-to-date and reflects all areas of the university's activities within the framework of the educational program
- ✓ Informing the public should include support and explanation of the national development programs of the country and the system of higher and postgraduate education
- ✓ The management of the HEI should use a variety of ways to disseminate information (including the media, web resources, information networks, etc.) to inform the general public and interested parties
- ✓ Information about the educational program is objective, up-to-date and should include:
- ✓ the purpose and planned results of the EP, the qualifications to be awarded
- ✓ information and evaluation system of educational achievements of students
- ✓ information about academic mobility programs and other forms of cooperation with partner universities, employers
- ✓ information about the opportunities for the development of personal and professional competencies of students and employment
- ✓ data reflecting the positioning of the EP in the market of educational services (at the regional, national, international levels)
- ✓ An important factor is the publication on open resources of reliable information about the teaching staff, in the context of personalities
- ✓ The university must publish audited financial statements for the EP on its own web resource
- ✓ The university must post information and links to external resources based on the results of external evaluation procedures
- ✓ An important factor is the placement of information about cooperation and interaction with partners, including scientific/ consulting organizations, business partners, social partners and educational organizations

#### Proving part

The public is informed by Suleyman Demirel University in accordance with the Information Policy (link), as well as in accordance with the Brand Book of Suleyman Demirel University (link).

Various communication channels in social media are used to inform the public in a timely and broad manner. The corporate social media of Suleyman Demirel University adheres to the corporate style and does not contradict the brand representation. The use of the logo, color scheme and communication principles are mandatory for all social media mentioning the name of Suleyman Demirel University: departmental and faculty channels.

In addition to the official website of Suleyman Demirel University sdu.edu.kz, social media accounts Instagram, Facebook, VKontakte, Telegram, Youtube as well as email distribution to external contacts are also used.

Students and alumni actively use the SDUConnect mobile application, where successfully employed alumni post their company's job openings. Currently, 200 students and 1,764 alumni use the app. Information on the app is updated weekly.

In order to inform the general public, as well as to promote and strengthen the image of Suleyman Demirel University, the Press Service uses different types of tools in the information field, the media at regional, national and international levels.

#### Analytical part

The Commission notes the full and clear description of this standard, which gives an idea of the degree of completeness of the scope and quality of the work analyzed in the report to the requirements formulated in the standard. In particular, it refers to the characteristic of such indicators as guarantees that students, teachers, employers and in general, interested persons, can get the necessary information, but the EEC experts note the need to publish the audited accounts of the university in the public domain. Also expansion of the volume of published information about the teaching staff, including academic degree, taught courses, scientific publications, etc. Questioning of the students, conducted during the visit of EEC IAAR, showed that the students' satisfaction with information about courses, EP, and academic degrees are fully satisfied - 67.6%, partially satisfied - 23.2%, not satisfied - 4.7% of students.

#### Strengths/Best Practice

- information on passing grades and learning opportunities provided to students;
- Information about the employment opportunities for graduates.

#### Recommendations of the EEC

To update the information on the web-resource of the university about the teaching staff (including academic degrees, teaching courses, scientific publications, etc. in the context of educational programs) by September 2022

Place on the site and keep current the detailed information on the structure, content of EPs, plans of their development, conditions and features of their implementation by September 2022.

EEC conclusions on the standard "Public Awareness" EP 6B06102 Computer Science, 7M06102 Computer Science, 8D06102 Computer Science revealed 10 criteria, of which 2 - strong positions, 7 - unsatisfactory positions and 1 position suggests improvement.

## (VII) REVIEW OF STRENGTHS/BEST PRACTICES FOR EACH STANDARD

#### Standard «Management of Educational Program»

- availability of mechanisms for formation and regular revision of EP development plan and monitoring of its implementation, assessment of achievement of learning objectives, compliance with the needs of students, employers and society, making decisions aimed at continuous EP improvement;
- Clear definition of those responsible for business processes within EP, unambiguous distribution of staff responsibilities, delineation of functions of collegial bodies;
- evidence of readiness to openness and accessibility for students, faculty, employers and other stakeholders

## Standard «Information Management and Reporting»

Availability of mechanisms to involve students, employees and teaching staff in the processes of information collection and analysis, as well as decision-making based on them;

The information supposed to be collected and analyzed in the framework of EP takes into account:

- the dynamics of the contingent of learners in the context of forms and types;
- the satisfaction of students with the implementation of EP and the quality of education in the university;
- accessibility of educational resources and support systems for students

## Standard «Development and Approval of the Education Program»

- availability of the developed graduates' models describing the learning outcomes and personal qualities;
- conducting external expertise of the EP content and planned results of its implementation

### Standard «Student-Centered Learning, Teaching and Performance Evaluation»

Using of various forms and methods of teaching and learning.

#### Standard «Students»

The order of formation of the student body consists of:

- minimum requirements for applicants;
- maximum group size for seminar, practical, laboratory, and studio classes;
- forecasting the number of state grants;

EP management has demonstrated a willingness to conduct special adaptation and support programs for newly enrolled and international students and to provide internship placements for students, to promote graduate employment, and to maintain communication with them.

#### Standard «Teaching Staff»

Responsibility of the EP management for their employees and ensuring favorable working conditions for them;

Opportunities for career growth and professional development of the teaching staff.

#### Standard «Public Information

- information on passing grades and learning opportunities provided to students;
- Information about the employment opportunities for graduates.

## (VIII) REVIEW OF QUALITY IMPROVEMENT RECOMMENDATIONS

## Standard «Management of Educational Program»

Increase the number of stakeholders, including students, in the collegial bodies (Academic Committees) of educational programs management and develop mechanisms to take into account the opinions of stakeholders on the development of educational programs.

### Standard «Information Management and Reporting»

Provide for the possibility of students to master additional educational programs (Minor).

### Standard «Development and Approval of the Education Program»

In the structure of the EP should be provided various types of activities that ensure the achievement by students of the planned learning outcomes by September 1, 2022. Ensure the publication of information on changes in educational programs on the official website of the University.

## Standard «On-Going Monitoring and Periodic Review of Educational Program»

To develop mechanisms to manage innovations in the educational program and their introduction in the educational process.

## Standard «Student-Centered Learning, Teaching and Performance Evaluation»

To take measures to organize the development of their own research in the field of teaching methodology of academic disciplines of EP until September 1, 2022.

To include policies and criteria for evaluating the knowledge of students in the curricula (syllabuses) of the University.

## Standard «Teaching Staff»

To consider the possibility of revising the personnel policy in order to disclose the motivational component to increase the rates of tenure of teaching staff and attract young staff.

#### Standard «Education Resources and Student Support Systems»

Develop a roadmap for the development of infrastructure for students with special educational needs by September 1, 2022.

PA leadership must demonstrate procedures in place to support diverse groups of learners, including information and counseling by September 1, 2022.

#### Standard «Public Information»

To update the information on the web-resource of the university about the teaching staff (including academic degrees, teaching courses, scientific publications, etc. in the context of educational programs) by September 2022

Place on the site and keep current the detailed information on the structure, content of EPs, plans of their development, conditions and features of their implementation by September 2022.

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

Not identified

# Appendix 1: Evaluation table "SPECIALIZED PROFILE PARAMETERS"

Conclusion of the external expert commission for evaluating the quality of educational programs 6B06102 Computer Science, 7M06102 Computer Science, 8D06102 Computer Science of Institution "Suleyman Demirel University

ite	NNo.	No. Evaluation criteria	Position of the educational organizati					
m No.			Stro ng	S at is fa ct o r y	T o b e i m p r o v e d	Unsat isfact ory		
Stand	dard " M	Ianagement of Educational Programme"						
1	1.	The organisation of higher and (or) postgraduate education should have a published quality assurance policy. The quality assurance policy should reflect the link between research, teaching and learning		+				
2	2.	The organisation of higher and (or) postgraduate education should demonstrate the culture's development of quality assurance, including in EP context		+				
3	3.	Commitment to quality assurance should apply to any activity performed by contractors and partners (outsourcing), including the implementation of joint / double degree education and academic mobility		+				
4	4.	EP management demonstrates readiness to ensure transparency of EP development plan based on the analysis of its functioning, EO actual positioning and the focus of its activities on meeting the needs of the state, employers, students and other concerned parties. The plan should contain the timing of the start of the implementation of the educational programme		+				
5	5.	EP management demonstrates the existence of mechanisms for the formation and regular revision of EP development plan and monitoring its implementation, assessing the achievement of learning goals, meeting the students'	+					
6	6.	needs, employers and society, making decisions aimed at continuous improvement of EP		+				
7	7.	EP management should involve representatives of stakeholder groups, including employers, students and TS in the formation of EP development plan		+				

8	8.	EP management should demonstrate the individuality and	+				
		uniqueness of EP development plan, its consistency with national priorities and the development strategy of the					
		organisation of higher and (or) postgraduate education					
9	9.	The organisation of higher and (or) postgraduate education		+			
		should demonstrate a clear definition of those responsible					
		for business processes within EP framework, an					
		unambiguous distribution of job duties of personnel,					
4.0	1.0	delineation of collegial bodies functions					
10	10.	EP management should provide evidence of the		+			
		transparency of the educational programme management system					
11	11.	EP management should demonstrate the existence of EP		+			
11	111.	internal quality assurance system, including its design,					
		management and monitoring, their improvement,					
		decision-making based on facts					
12	12.	EP management should carry out risk management,		+			
		including within EP framework, undergoing initial					
		accreditation, as well as demonstrate a system of measures					
13	13.	aimed at reducing the risk degree		+			
13	13.	EP management should ensure the participation of representatives of employers, TS, students and other					
		concerned parties in the collegial management bodies of the					
		educational programme, as well as their representativeness					
		in making decisions on the educational programme					
		management					
14	14.	EO should demonstrate innovation management within EP	+				
		framework, including the analysis and implementation of					
1.5	1.5	innovative proposals					
15	15.	EP management should demonstrate evidence of readiness for openness and accessibility for students, TS, employers		+			
		and other concerned parties					
	!	Total on standard	3	12	0	0	
Stand	dard "Iı	nformation Management and Reporting"					
16	1.	EO should demonstrate the existence of a system	for		+		
		collecting, analyzing and managing information based on					
		use of modern information and communication technolog					
		and software and that it uses a variety of methods to coll	ect				
		and analyze information in EP context					
17	2.	EP management should demonstrate the existence of			+		
		mechanism for the systematic use of processed, adequation for the systematic use of processed and the systematic use of the systematic use					
18	3.	information to improve the internal quality assurance system			+		
10	] 3.	EP management should demonstrate decision-making based facts	OII		'		
19	4.	Within EP framework, a system of regular reporting should	be		+		
		provided reflecting all levels of the structure, including					
		assessment of the performance and efficiency of the u					
		activities and departments, scientific research					
20	5.	EO should establish the frequency, forms and methods assessing EP management, activities of collegial bodies a			+		

		structural units, top management, the implementation of scientific projects				
21	6.	EO should demonstrate the determination of the order and ensuring the protection of information, including the identification of persons responsible for the accuracy and timeliness of the analysis of information and the data provision.		+		
22	7.	An important factor is the availability of mechanisms for involving students, employees and TS in the processes of collecting and analysing information, as well as making decisions based on them	+			
23	8.	EP management should demonstrate the existence of a communication mechanism with students, employees and other concerned parties, as well as mechanisms for resolving conflicts		+		
24	9.	EO should demonstrate the existence of mechanisms for measuring the degree of satisfaction of the TS needs, personnel and students within EP framework		+		
25	10.	EO should provide for the assessment of the performance and efficiency of activities, including in EP context		+		
		The information intended for collection and analysis within E into account:	P frame	work s	houla	take
26	11.	key effectiveness indicators		+		
27	12.	the dynamics of the students contingent in the context of forms and types;	+			
28	13.	academic results, student achievement and expulsion		+		
29	14.	satisfaction of students with the realization of EP and the quality of education at HEI	+			
30	15.	availability of educational resources and support systems for students	+			
31	16.	EO should confirm the realization of procedures for processing personal data of students, employees and TS on the basis of their documentary consent		+		
		Total on standard	4	12	0	0
		evelopment and Approval of the Education Programme"	ı	1.	1	
32	1.	EO should define and document the procedures for EP development and its approval at the institutional level		+		
33	2.	EP management should ensure that the developed EP meets the established objectives, including the expected learning outcomes		+		
34	3.	EP management should ensure the availability of developed models of EP graduate, describing the learning outcomes and personal qualities		+		
35	4.	EP management should demonstrate the performance of external examinations of EP content and the planned results of its implementation	+			
36	5.	The qualification awarded upon EP completion should be clearly defined and correspond to a certain NQS level	+			
37	6.	EP management should determine the influence of disciplines and professional practices on the formation of learning outcomes		+		

						_
38	7.	An important factor is the ability to prepare students for professional certification		+		
39	8.	EP management should provide evidence of the participation of students, TS and other stakeholders in EP development, ensuring their quality		+		
40	9.	EP complexity should be clearly defined in Kazakhstani credits and ECTS		+		
41	10.	EP management should ensure that the content of academic disciplines and planned results are consistent with the level of education (bachelor's, master's, doctoral studies).		+		
42	11.	EP structure should provide for various types of activities to ensure that students achieve the planned learning outcomes.			+	
43	12.	and EP learning outcomes, implemented by institutions of higher and (or) postgraduate education in the EHEA		+		
~ .			2	9	1	0
	T T	On-Going Monitoring and Periodic Review of Educational Prog	ramme	1		
44		EO should define mechanisms for monitoring and EP periodic evaluation in order to ensure the achievement of the goal and meet the needs of students and society. The results of these processes should be aimed at EP continuous improvement		+		
		Monitoring and EP periodic evaluation should provide for:				
45		the content of the programmes in the light of the latest scientific achievements in a specific discipline to ensure the relevance of the taught discipline		+		
46	3.	changes in the needs of society and the professional environment		+		
47	4.	workload, the level of academic achievement and students' graduation		+		
48	5.	the effectiveness of student assessment procedures		+		
49		expectations, needs and satisfaction of students with EP training		+		
50	7.	educational environment and support services and their compliance with the objectives of EP		+		
51	8.	EP management must demonstrate the existence of a documented procedure for monitoring and periodic evaluation in order to achieve the goal of the EP and continuously improve the EP		+		
52	9.	EO, EP management should define a mechanism for informing all concerned parties about any planned or taken actions in relation to EP		+		
53	10.	All changes made to EP should be published.			+	
		Total on standard	0	9	1	0
Stan	dard "S	tudent-Centered Learning, Teaching and Performance Evaluation	on''		•	•
54	1. E	EP management should ensure respect and attention to different groups of students and their needs providing them with flexible earning trajectory		+		
55	2. E	EP management should provide for the use of various forms and nethods of teaching and learning	+			

56	3.	An important factor is the availability of own research in the field of teaching methods of EP academic disciplines			+	
57	4.	EP management should demonstrate the existence of feedback mechanisms on the use of various teaching methods and assessment of learning outcomes		+		
58	5.	EP management should demonstrate the existence of mechanisms to support the students' autonomy with simultaneous guidance and assistance from the teacher.		+		
59	6.	EP management should demonstrate the existence of a procedure for responding to student complaints		+		
60	7.	EO should ensure consistency, transparency and objectivity of the mechanism for assessing learning outcomes for each EP, including appeal		+		
61	8.	EP should ensure that the procedures for assessing the learning outcomes of EP students are consistent with the planned results and programme objectives. Criteria and methods of assessment within EP framework should be published in advance		+		
62	9.	EO should determine the mechanisms for ensuring the achievement of learning outcomes by each EP graduate and ensure the completeness of their formation		+		
63	10.	Evaluators should be proficient in modern methods of assessing learning outcomes and regularly improve their qualifications in this area		+		
			1	8	1	0
Stan	dard '	"Students"			1	
64	1.	EO should demonstrate the existence of a policy for the formation of the students' contingent in EP context from admission to graduation and ensure the transparency of its procedures. The procedures governing the students' life cycle (from admission to completion) should be defined, approved, published		+		
		EP management should determine the procedure for the formation of the students' contingent based on:				
65	2.	minimum requirements for applicants	+			
66	3.	maximum group size when conducting seminars, practical, laboratory and studio classes	+			
67	4.	forecasting the number of government grants	+			
68	5.	analysis of available material and technical, information resources, human resources		+		
69	6.	analysis of potential social conditions for students, including providing places in the hostel		+		
70	7.	EP management is obliged to demonstrate readiness to conduct special adaptation and support programmes for newly entered and foreign students				
71	8.	EO should demonstrate that its actions are consistent with the		+		
72		Lisbon Recognition Convention				

					1	
		National Academic Recognition Information Centers" ENIC / NARIC in order to ensure comparable recognition of qualifications				
73	10.	EO should provide an opportunity for external and internal mobility of EP students, as well as a willingness to assist them in obtaining external grants for training.		+		
74	11.	EP management should demonstrate its readiness to provide students with places of practice, to promote the graduates' employment, to maintain communication with them	+			
75	12.	EO should provide for the possibility of providing EP graduates with documents confirming the received qualifications, including the achieved learning outcomes, as well as the context, content and status of the education received and evidence of its completion		+		
		Total on standards	5	7	0	0
Stand	dard "Te	eaching Staff"			-	
76	1.	EO should have an objective and transparent personnel policy, including in EP context, including recruitment, professional growth and development of personnel, ensuring the professional competence of the entire staff		+		
77	2.	EO should demonstrate the compliance of the TS staff potential with EO development strategy and EP specifics		+		
78	3.	EP management should demonstrate awareness of responsibility for their employees and providing them with favorable working conditions	+			
79	4.	EP management should demonstrate the change in the role of the teacher in connection with the transition to student-centered learning		+		
80	5.	EO should determine the contribution of TS of the EP to the implementation of EO development strategy, and other strategic documents		+		
81	6.	EO should provide opportunities for career growth and professional development of TS of the EP	+			
82	7.	EP management is obliged to demonstrate readiness to involve practitioners of the relevant industries in teaching.		+		
83	8.	EO should demonstrate motivation for the professional and personal development of EP teachers, including encouragement for the integration of scientific activity and education, the use of innovative teaching methods		+		
84	9.	An important factor is the readiness to develop academic mobility within EP framework, to attract the best foreign and national teachers		+		
G.	1 1 1 11 12 1	Total on standard	2	7	0	0
Stand 85	dard "Ed	ducation Resources and Student Support Systems"  EO should ensure a sufficient number of training resources and	1	+		
		student support services that meet EP objectives.	_			
86	2.	EO should demonstrate the sufficiency of material and technical resources and infrastructure, considering the needs of students' various groups in EP context of (adults, working, foreign students, as well as students with disabilities).			+	

	_			_		_
87	3.	The management of the EP must demonstrate awareness of responsibility for its employees and provide them with favorable working conditions			+	
		EP management is obliged to demonstrate the existence of procedures for supporting various groups of students, including				
		informing and consulting. EP management should demonstrate the compliance of information resources with EP specifics,				
0.0	+ -	including:		<del> </del>	-	<u> </u>
88	4.	technological support for students and TS in accordance with educational programmes (for example, online training, modeling, databases, data analysis programmes)		+		
89	5.	library resources, including the fund of educational, methodological and scientific literature on compulsory education, basic and major disciplines on paper and electronic media, periodicals, access to scientific databases		+		
90	6.	examination of research results, graduation works, dissertations for plagiarism		+		
91	7.	access to educational Internet resources		+		
92	8.	functioning of WI-FI on the territory of the educational organisation		+		
93	9.	EO should strive to ensure that the educational equipment and software intended for use in the development of educational programmes are similar to those used in the relevant industries		+		
		Total on standard	0	7	2	0
Stand	lard "P	Public Information"				
		EO should publish reliable, objective, relevant information about the educational programme and its specifics, which should include:				
94	1.	expected learning outcomes of EP implemented		+		
95	2.	qualifications and (or) qualifications that will be awarded upon EP completion		+		
96	3.	approaches of teaching, learning, as well as the system (procedures, methods and forms) of assessment		+		
97	4.	information about passing scores and learning opportunities provided to students	+			
98	5.	information about the possibilities of employment of graduates	+			
99	6.	EP management should provide for various ways of disseminating information, including mass media, information networks to inform the general public and concerned parties		+		
100	7.	Public awareness should include support and explanation of the country's national development programmes and the system of higher and postgraduate education		+		
101	8.	EO should demonstrate the reflection on the web resource of information characterizing it in general and in EP context.			+	
101	8. 9.			+	+	

Total on standard	2	7	1	0
TOTAL	19	78	6	0