MINISTRY OF EDUCATION AND SCIENCE OF THE REPUBLIC OF KAZAKHSTAN
RSE with EMR "M.AUEZOV SOUTH KAZAKHSTAN STATE UNIVERSITY" MES RK

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1943

EDUCATION PROGRAMME

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THE MINISTRY OF EDUCATION AND SCIENCE OF THE REPUBLIC OF KAZAKHSTAN

M.Auezov SOUTH KAZAKHSTAN STATE UNIVERSITY

"APPROVED BY"
The Rector
d.h.s., academician Kozhamzharova D.P.
«28» 04 2020 y.

EDUCATION PROGRAMME

7M07510-"Standardization and Certification" (by industry)

Registration number	7M07500004
Code and classification of the field of education	7M07-Engineering, manufacturing and construction industries
Code and classification of training areas	7M075-Standardization, Certification and Metrology (by industry)
Group of educational programs	M130-Standardization, Certification and Metrology (by industry)
Type of EP	Current EP
ISCE level	7
NQF level	7
SQF of education level	7
Language of learning	English
Typical duration of study	2 years
Form of study	Scientific and pedagogical
The complexity of the EP, not less	120 credits
Distinctive features of EP	-
University Partner (JEP)	-
University Partner (TDEP)	-
Social Partner (DE)	-

Shymkent, 2020

Drafters:

Name	Position	Sign
Tulekbaeva A.K.	k.t.s., associate professor, head of department	
Bekibaev N.S.	d.t.s., professor	
Asanova A. R.	master, teacher	
Nurpeissov A.S.	Undergraduate 1 course, Group MNG-19-3nr	
Bazarbek A.A.	Undergraduate 2 course, Group MNG-18-3nr	
Beiseev S.A.	Director of the BTSh RSE "Kazakhstan Institute of Standardization and Certification"	

EP was considered by the Methodological Commission of the Faculty «Mechanics and Oil and Gas», Protocol № 7 from 18 02 2020.

Chairman of MC (Committee) _____ Dosmakhanbetova A.A.
Sign

Considered and recommended for approval at the meeting of Educational and Methodical Council of M. Auezov SKSU.
protocol № 4 from 26 02 2020.

Approved by the decision of the Academic Council of the University
protocol № 10 from 28 02 2020.

CONTENT

Introduction

1. Scope

Designed for the implementation of master training by educational program (hereinafter - EP) code 7M07510-"Standardization and Certification" (by industry) in RSE on right of economic management "M.Auezov South Kazakhstan State University" of RK MES.

2. Regulatory documents

Education Act of the Republic of Kazakhstan (as amended and supplemented on 07/04/2018);

Standard rules for the operation of educational organizations implementing educational programs of higher and (or) postgraduate education, approved by order of the Minister of Education and Science of the Republic of Kazakhstan from October 30, 2018 No. 595 (registered with the Ministry of Justice of the Republic of Kazakhstan on October 31, 2018 No. 17657);

State obligatory standards of higher and postgraduate education, approved by order of the Minister of Education and Science of the Republic of Kazakhstan, October 31, 2018 No. 604;

The rules for the organization of educational process on credit technology education, approved by order of the Minister of Education and Science of the Republic of Kazakhstan on April 20, 2011 No. 152 as amended and supplemented of October 12, 2018 No. 563

The rules of organizing and conducting professional practice and the rules for defining organizations as bases of practice, approved by the order of the MES of RK dated January 29, 2016 No. 107;

Comprehensive plan for improving the system of technical regulation and metrology until 2020, approved by the Decree of the Government of the Republic of Kazakhstan dated June 10, 2014 No. 635 (as amended and supplemented on 27/02/2015);

Professional standard “Standardization”, approved by order of the Deputy Chairman of the Board of the National Chamber of Entrepreneurs of the Republic of Kazakhstan “Atameken” from 12.30.2019. Number 270;

Professional standard “Training of specialists in the field of technical regulation”, approved by order of the Deputy Chairman of the Board of the National Chamber of Entrepreneurs of the Republic of Kazakhstan “Atameken” from 12.30.2019. Number 270;

Professional standard “Assessment in the field of accreditation”, approved by order of the Deputy Chairman of the Board of the National Chamber of Entrepreneurs of the Republic of Kazakhstan “Atameken” from 12.30.2019. Number 270;

Professional standard “Quality control of products, processes, services”, approved by order of the Deputy Chairman of the Board of the National Chamber of Entrepreneurs of the Republic of Kazakhstan “Atameken” from 12.30.2019. Number 270;

Professional standard “Confirmation of conformity of food products”, approved by order of the Deputy Chairman of the Board of the National Chamber of Entrepreneurs of the Republic of Kazakhstan “Atameken” from 12.30.2019. Number 270.

Professional Standards "Teacher" (Appendix to the order of the Chairman of the Board of the National Chamber of Entrepreneurs of Kazakhstan "Atameken" No. 133 of June 8, 2017).

3. Educational programs concept

The goal of the educational program is coordinated with the mission of university and is aimed at preparing the intellectual elite of the country with advanced entrepreneurial skills, fluent in three languages, demonstrating conceptual, analytical and logical thinking skills, creative approach in professional activities, being able to work in national and international teams obtaining the lifelong strategy.

The educational program is harmonized with the 7th level of the National Qualifications Framework of the Republic of Kazakhstan, Industry Qualifications Framework (Technical Regulation Services), with Dublin descriptors, 2 cycle of the Framework for Qualification of the

European Higher Education Area, also with Level 7 of the European Qualification Framework for Lifelong Learning.

The educational program is focused on professional and social order through the formation of professional competencies associated with the necessary types of research, practical and business activities, adjusted to meet the requirements of stakeholders.

The uniqueness of EP. 7M07510-"Standardization and Certification" (by industry) is determined by the fact that the state innovation policy to effectively stimulate innovation and the development of knowledge-intensive industries in all sectors of our country is accompanied by the formation of a regulatory framework for new innovative products and services, which is based on the application of scientific and special methods standardization and certification, knowledge and competence in which are acquired by graduates of the EP 7M07510-"Standardization and Certification" (by industry) after its development.

EP of a scientific and pedagogical magistracy 7M07510-"Standardization, Certification and Metrology" (by industry) accredited by IQAA in 2019.

EP focuses on the training of scientific personnel to address the most important issues of modern aspects of the development of standardization and certification in priority sectors of the economy, which are necessary in the development, production and sale of new innovative products and services, as well as teaching staff with new pedagogical knowledge to conduct teaching activities in organizations of higher and postgraduate education in the direction of standardization, certification and quality management.

The educational program aims to achieve learning outcomes through the organization of educational process using the principles of Bologna process, student-centered learning, accessibility and inclusion.

Program learning outcomes are achieved through the following training events:

- classroom training: lectures, seminars, practical and laboratory classes - held in view of innovative teaching technologies, the use of the latest achievements of science, technology and information systems;
- extracurricular training: the independent work of the student, including under the guidance of a teacher, individual counseling;
- conducting professional practices, implementation of course and diploma works (projects).
- research papers of the undergraduate student (RPUS): the student's independent scientific work, including the implementation of the master's thesis and scientific internship.

The university has taken measures to maintain academic integrity and academic freedom, protection from any kind of intolerance and discrimination against students.

The quality of EP is ensured by the involvement of stakeholders in its development and evaluation, systematic monitoring and review of its content.

4. Entry Requirements

Established according to the Model Rules for admission to studies in educational organizations that implement educational programs of higher and postgraduate education by order MES RK №600 on 10.31.2018

1 EDUCATION PROGRAMME PASSPORT

1.1 The purpose and objectives of education program by specialty

EP objectives: Training of specialists with scientific and pedagogical knowledge in the field of standardization, certification, accreditation and quality management in the priority sectors of the economy.

EP tasks:

- providing conditions for the acquisition of a high intellectual level of development, mastering logical and critical thinking and skills of scientific organization of labor in scientific and pedagogical activity;

-development of the ability to use the acquired knowledge in professional activities to solve scientific, managerial and technological problems, operational decision-making in problem situations;

- development of skills of self-study and continuous training throughout the professional activity, which will allow masters to successfully adapt to changing conditions;

- formation of competitiveness of graduates in the field of standardization, certification and accreditation in various sectors of the economy to ensure rapid employment in the specialty or continuing education in doctoral studies.

1.2 List of qualifications and positions

The graduate of the educational program of the scientific and pedagogical direction is awarded the degree of "Master of Technical Sciences."

Masters of technical sciences in EP can hold primary positions in higher education institutions - head of laboratory, teacher, senior teacher, in organizations and enterprises - standardization specialists, leading standardization specialists, heads of structural divisions whose activities are related to quality assurance - laboratory heads, departments of standardization and certification, technical control, patent and research directions, heads of certification bodies for products , services, management systems, experts – technical experts on standardization and accreditation, heads for analysis and quality control of services provided, heads of a center of excellence (in the field of technical regulation), accreditation assessors without making requirements for work experience in accordance with the qualification requirements of the Qualification directory of positions of managers, specialists and other employees, approved by order of the Minister of Labor and Social Protection of the Republic of Kazakhstan from May 21, 2012 No. 201.

1.3 Qualification characteristics of the educational program graduate

1.3.1 Scope of professional activity

The scope of professional activity is the scientific aspects of standardization, certification and accreditation systems to improve the quality of products, processes and services, standardize innovative technologies and technology based on the use of general scientific and special methods of standardization and certification, search, selection, analysis and systematization of information, improve the national system of standardization and certification by solving issues of harmonizing the regulatory framework with taking into account the requirements of the Eurasian Economic Union, European and international practice in the field of governance quality, educational activities.

1.3.2 Objects of professional activity

The objects of professional activity of graduates are :

- technical committees, authorized bodies in the field of standardization, certification and accreditation;

- research organization in the field of standardization, certification and accreditation, quality management;
- bodies for confirmation of conformity (certification);
- testing laboratories that are directly related to the confirmation of conformity of quality and safety indicators of products, processes, services;
- testing equipment of laboratories of enterprises, testing centers;
- various types and categories of regulatory documents;
- systems of standardization, certification, accreditation and quality management of enterprises of all sectors of the country's economy;
- educational and methodical documentation, technical means of education;
- research work.

1.3.3 Subjects of professional activity

Subjects of professional activity of Master of Technical Sciences in the field of EP are:
- regulatory and technical documentation for new and innovative products and technologies;
- new equipment;
- international management systems;
- scientific research to ensure the quality of the inspection activities of products, processes, services;
- educational services for the training of specialists in the field of standardization, certification, accreditation;
- quality control.

1.3.4 Types of professional activity

Master of Technical Sciences in the EP can do the following types of professional activity:
- organizational - managerial;
- production and technology;
- settlement and design;
- research
- pedagogical.

2. EP learning outcomes

LO1 Demonstrate knowledge of a foreign language in professional activities, interpersonal communication, writing scientific articles, understanding worldview and methodological problems arising at the present stage of development of science, evaluate facts and phenomena based on the provisions and categories of the philosophy of science.

LO2 Evaluate the development and effective use of socio-psychological technologies in management, apply the methodology of scientific research, innovative teaching methods of specialized disciplines, critically evaluate the scientific organization of higher education teacher work.

LO3 Demonstrate the ability to work in a team, to be creative and logical thinking when making operational management and technical decisions in non-standard situations in professional activities.

LO4 Use the scientific principles of standardization, certification and accreditation systems to analyze the state and dynamics of the quality of products, services, processes, management systems.

LO5 Conduct analytical work on improving standardization systems and certification, accreditation of various sectors of the country's economy with the involvement of information resources, summarize the results in scientific articles.

LO6 Apply acquired knowledge and skills to analyze problems in interdisciplinary related fields of knowledge, independently carry out experimental research, substantiate research results when discussing with specialists and a wider audience.

LO7 Work effectively individually and as a member of the team, correctly defend your point of view, adjust your actions and use different methods.

3 COMPETENCES OF EP GRADUATE

3.1 Successful completion of training in the EP helps the graduate to form the following key competencies:

- core competencies (CC)
- professioanal competencies (PC).

Core competencies:

(CC1) in the field of *native language*

- the ability to master the basic skills of communication in a foreign language in the professional field, both verbally and in writing, mediation and intercultural understanding;

(CC2) *technical*

- the ability to use educational potential, knowledge and experience acquired during the study of technical disciplines in professional activities and use them to analyze and solve non-standard problem situations; the ability to carry out chemical-technological processes, develop new methods of production and test them under production conditions; update and deepen the knowledge necessary for professional activities and continuing education in doctoral studies;

(CC3) *managerial and entrepreneurial*

- the ability to own the skills of critical thinking, interpretation, creative analysis, conclusion conclusions, evaluation; manage scientific projects to achieve professional goals, manage personnel, demonstrate entrepreneurial skills; the ability to find compromises, to relate their opinion with the opinion of the team; hold business ethics; strive for professional and personal growth; work in a team, correctly defend their point of view, propose new solutions; demonstrate tolerance towards other individuals;

(CC4) *research*

- the ability to conduct a detailed analysis of scientific and technical information in the field of standardization, certification, accreditation and quality management in priority industries for the purpose of scientific, patent and marketing support for research, the ability to summarize the results of research work in the form of scientific publications, to defend their position during discussions and making professional decisions in the face of uncertainty and risk;

(CC5) *methodological*

- the ability to analyze and comprehend the realities of the modern theory and practice of standardization and certification systems based on the methodology of natural science knowledge, apply new methods of teaching specialized disciplines in teaching, the ability to organize and conduct research in the field of standardization, certification, accreditation and quality management, services, processes and management systems.

Professional competencies:

PC1 pedagogical

- the ability to possess the skills of teaching: lecturing, laboratory and practical classes; use interactive classroom practices; know the types and purpose of educational documentation; own the technology of development of basic educational and methodical documentation; know the procedures of the quality management system in relation to the conduct of training sessions and educational methodological documentation.

PC2 scientific

- understanding and creative use of knowledge of fundamental and applied sections of

standardization and certification in scientific and industrial-technological activities: the application of standardization methods, various technologies for developing and harmonizing with international requirements of normative documents, assessing the effectiveness of standards implementation in enterprises and organizations, methods for evaluating effectiveness certification; have skills and writing articles, reports and theses on research work; draw up scientific and technical reports and have the skill of public speaking with the result of scientific research.

PC3 engineering

- determine the strategy of applying various engineering methods for managing the quality of products, services, processes and work in the practical activities of enterprises; own the ability to develop integrated management systems with industry-specific.

PC4 resource-saving

- the ability, based on the knowledge of the scientific and technical basis of certification, to assess the need for resources and plan their use in solving the tasks of confirming the conformity of various products / services by quantitative and qualitative indicators; environmental safety of production, protection of workers' health, the introduction of new technologies and equipment.

PC5 innovative

- the ability to apply the methodological principles of improving standardization and certification systems when planning and producing new innovative products, to understand international requirements for management methods when introducing various international management systems, increasing staff motivation in the final results of their work, meeting quality goals, applying new test methods and control in the field of confirmation of compliance of products, services, personnel, quality systems with domestic fire alarm systems I formulating and solving problems on the removal of technical barriers to domestic enterprises and the recognition of certificates of Kazakhstan.

3.2 Matrix of correlation of EP learning outcomes in general with modules formed by competencies

	O1	**O2**	**O3**	**O4**	**O5**	**O6**	**O7**
CC1	+		+			+	
CC2		+			+		+
CC3	+		+				+
CC4	+			+	+	+	
CC5		+		+		+	
PC1		+	+				+
PC 2	+	+		+	+		
PC 3				+		+	+
PC 4			+	+		+	
PC 5	+	+				+	

4. SUMMARY TABLE REFLECTING THE VOLUME ASSIMILATED CREDITS OF EDUCATION PROGRAM MODULES

Course of Study	Semester	The number of mastered modules	The number of studied disciplines		Number of KZ credits					**Total hours**	Total KZ credits	The number of	
			VC	EC	Theoretical training	Pedagogical practice	Research practice	MSRW	Final examination			exam	dif. credit
1	1	3	5	2	28	-	-	2	-	900	30	7	1
	2	2	-	4	20	8	-	2	-	900	30	4	2
2	3	2	-	3	16	-	12	2	-	900	30	3	2
	4	2	-	-	-	-	-	18	12	900	30	-	1
Total			**5**	**9**	**64**	**8**	**12**	**24**	**12**	**3600**	**120**	**14**	**6**

5. Information about disciplines

Module name	CYCLE	VC/EC	Component Name	Brief course description (in 30-50 word)	Number of credits	Formed LO (codes)
Module of Scientific and Pedagogical Training	BD	VC	History and Philosophy of Science	History and philosophy of natural and technical Sciences. New European science in culture and civilization, the emergence of science, its historical dynamics, the structure of scientific knowledge, philosophical problems of specific Sciences. Communication technologies of the XXI century and their role in modern science. Philosophical problems of the development of modern global civilization. Modern actual methodological and philosophical problems of natural and social sciences and humanities.	3	LO1 LO6 LO7
			Foreign Language (Professional)	Mastering the main types of reading foreign-language original sources with varying degrees of content coverage. Development of skills of preparation of written reports on scientific topics in the specialty: scientific report, abstracts on the topic of scientific research, abstracting original sources in a foreign language, annotation of the scientific text, summary. Understanding the general content of authentic records. Listening to lectures, messages containing professional information. Development of oral communication skills in the specialty: presentation with a scientific report, presentation of scientific research, scientific discussion, scientific debates, the use of situational games. . Development of oral communication skills in the specialty: presentation with a scientific report, presentation of scientific research, scientific discussion, scientific debates, the use of situational games.	3	LO1 LO2 LO3
			Higher School Pedagogy	Modern higher education paradigms. The system of higher vocational education in Kazakhstan. Methodology of pedagogical science. Professional competence of a high school teacher. The organization of the educational process on the basis	3	LO2 LO3 LO6 LO7

				of the credit system of education in higher education. Methods and forms of training in the preparation of future professionals. New educational technology in higher education. Higher school as a social institution of education and the formation of the personality of a specialist.		
Methodical Bases of Teaching	BD	EC	Psychology of Management	The main approaches and principles of modern psychological science, necessary in the professional activities of highly qualified specialists. Formation of the scientific-theoretical worldview on the fundamental psychological concepts, the development of ideas about psychological science, revealing the content of the discipline. Formation of skills and habits of psychological research of a personality, acquaintance with the main methods of experimentally - psychological research and the main areas of psycho-correction work. Features of conflict management, stress, and methods of their resolution.	3	LO2 LO3 LO7
	PD	VC	Methods of Teaching Special Disciplines	Knowledge of the features of teaching special disciplines in the field of standardization and certification, understanding modern technologies of organizing the learning process and controlling the quality of students' knowledge, skills in conducting training sessions on subjects of the professional cycle in the field of standardization and certification, developing educational and methodical documentation, ability to analyze the content of the educational process in subjects professional cycle	5	LO4 LO5 LO6 LO7
	BD	EC	Pedagogical Practice	Ability to learn new requirements for the modern teacher, the work of a university teacher as a scientist, teacher, educator, public figure,the application of logical and critical thinking to solve problems in the field of stagnantization and certification, awareness of the social importance of their future profession and the acquisition of motivation to perform professional tasks, using modern educational and information technologies, the development of professional research culture in the field of standardization and certification, the	8	LO3 LO4 LO5 LO6

				formation of professional and pedagogical skills in the field of standardization and certification, culture of scientific and pedagogical thinking		
Scientific and Pedagogical Basis of System of Standardization and Certification	BD	EC	Modern Problems of Development of System Quality Management	Knowledge of the methodological foundations of building a system of quality management in organizations, ability to identify management problems, arising in the course of specific situations, suggest ways to solve them, taking into account the effectiveness criteria, possible social and economic consequences, analyze current and long-term management decisions, managerial skills, economic and social information, management decisions at the level of departments and organizations in general	5	LO5 LO6 LO7
			International Standardization and Certification Systems	Knowledge and understanding of international standardization and certification systems, ability to apply various international standards in their professional activities, analyze the activities of international organizations on standardization and certification in the field of quality management, skills in applying international requirements for the development, coordination and adoption of international standards in the Republic of Kazakhstan.		LO3 LO5 LO7
The Main Business Processes of MS ISO 9000 Series	BD	EC	Systems for Standardization of Occupational Safety and Environmental Protection	Knowledge of standard systems for occupational safety and environmental protection, legislative framework, understanding of the main activities of state bodies and enterprises in the field of labor protection and safety, environmental protection, main objects of standardization of occupational safety and environmental protection, skills of using general scientific methodology, logic and technology for conducting research work on the examination of regulatory and technical documentation in the field of occupational safety and health, environmental management	5	LO4 LO5 LO7
			Modern Problems of Environmental Management and Life Safety Management	Knowledge of modern problems of environmental management and life safety, ability to work with legal and regulatory documents, establish requirements for the protection of health and safety		LO5 LO6 LO7

				of personnel, protection of the environment, analyze the main trends in the development of international systems in the field of labor protection and the environment, skills in the development, implementation and integration of environmental management and safety systems in the overall management system of an enterprise		
			Engineering Methods of Quality Management	Knowledge of the methodological and practical aspects of the application of engineering methods in the enterprise quality management system, ability to select engineering methods depending on the object of research, defect analysis, rejects, inconsistencies, information gathering skills for designing complex technical systems, monitoring business processes	5	LO4 LO5 LO7
			Quality Engineering	Knowledge of the etymology of the concept of quality, the main directions of quality engineering, understanding of the concept of quality, skills in applying quality engineering techniques for designing objects, development of quality plans, tools and operational schemes of an applied nature, including pre-design feasibility studies and justifications of planned investments, necessary laboratory and experimental development of technologies and prototypes, their industrial development, as well as follow-up services and consultations		LO4 LO5 LO6
Scientific and technical base of standardization and certification	PD	EC	Scientific aspects of the organization of research in the field of standardization and certification	Knowledge of the scientific and technical principles of the development of standardization as a science, the role of standardization in ensuring the scientific, technical and socio-economic development of the country, understanding of the tasks and main stages of the organization of research in the field of standardization and certification, analysis of modern approaches to research in the field of standardization and certification in priority industries, skills in applying the concept of project management in organizing research, the formation of various research projects in the field of standardization and certification	6	LO4 LO5 LO6
			Innovations in	Knowledge and understanding of innovative		LO4

			Standardization and Certification	approaches to the formation of standardization and certification systems at enterprises of any sector of the country's economy, the ability to choose new progressive technologies, organizational and management systems, skills to evaluate the effectiveness of an innovative project, development of enterprise innovation strategy in the field of standardization and certification		LO5 LO6
The Main Business Processes of MS ISO 9000 Series	PD	EC	Human Resource Management of an Organization in the Implementation of ISO 9000 Standards	Knowledge and understanding of basic theoretical, philosophical and conceptual patterns, principles and methods of personnel management based on ISO 9000 standards, the ability to form personnel management systems based on the provisions of MS ISO 9000 in modern conditions of development, skills of modern technologies of recruitment, evaluation, selection and socialization of staff, as well as management of its development and behavior, the use of personnel psych diagnostics, through the manifestation of independent thinking and a creative approach to solving educational problems	4	LO2 LO3 LO5
			Evaluation of the Effectiveness of Personnel Management	Knowledge of the methodology for assessing the effectiveness of personnel management, understanding of the elements of evaluation - performance criteria, labor accounting, remuneration, productivity, analysis of modern international methods in the field of personnel assessment skills in implementing the principles and provisions of the MS "Investing in people", developing motivational schemes and compensation packages, improving the personnel assessment system		LO2 LO3 LO4
Practical aspects of product and process quality management	PD	EC	Integrated Quality Management Systems	Knowledge of modern quality management systems, international ISO standards for management systems, understanding of the principles of integrating various management systems, the ability to analyze the common elements of management systems for their integration, development skills and introduction into the general management system of an enterprise of various international management systems, documenting basic business processes.	6	LO3 LO4 LO5

			Modern Problems of Branch Integrated Quality Management Systems	Knowledge and understanding of modern problems in quality management, taking into account their industry specifics, the ability to conduct a selection of quality management systems depending on the industry sector, skills in the use of various international management systems and their integration, taking into account the industry application.		LO3 LO4
			Methods for Assessing the Effectiveness of Certification	Knowledge and understanding of scientific methods for assessing the conformity of the quality of products, works and services, rules for certification of specific products, the ability to conduct a selection of products subject to certification, skills in using computer technologies for planning and conducting certification work, using the certification information base, analyzing safety requirements for products, and accrediting test organizations, identified for certification testing, supervision and quality control of certified products	5	LO4 LO5 LO6
			Modern Methods of Testing and Quality Control	Knowledge of modern test methods, understanding of product quality control procedures, regulatory requirements for the development of test methods, ability to plan and organize product quality control systems, test development skills, product testing, preparation of test reports and product quality control, their development, certification and implementation, test results qualification, intercomparison testing, calculation of test results uncertainty		LO4 LO5 LO6
Scientific and technical base of standardization and certification	PD	EC	Development and Harmonization of Regulatory Documents	Knowledge of the methodological aspects of developing and harmonizing regulatory documents with international and regional requirements, understanding the technical identity of various regulatory documents, analyzing the legal framework for developing and harmonizing RD, developing various RDs for manufacturers and consumers of products, conducting normative control of RD using error classifiers, implementing technology life cycle standard and other RD	5	LO1 LO5 LO7

			Principles for the Development of Technical Regulations	Knowledge of regulatory requirements for the development of technical regulations, an understanding of the scientific principles of the formation of sections of technical regulations, analysis of approaches in their development in the areas of accreditation, ensuring the uniformity of measurement, standardization and certification		LO4 LO5
			Organizational Basics of the Accreditation System	Knowledge of the methodological and scientific basis of the accreditation system, requirements of international accreditation systems - ILAC, IAF, EA т requirements standards of ISO / IEC 65, ISO / IEC 17025 to the activities of the subjects of the accreditation system, understanding the criteria and conditions for accreditation of subjects of accreditation, skills in evaluating the activities of subjects of the accreditation system, determining the cost of peer review, conducting state control of accredited certification bodies and testing laboratories	6	LO1 LO5 LO7
			Systems of Conformity Assessment of Products, Processes, Services, Personnel, SM	Knowledge and understanding of the basic systems for confirming the conformity of processes, services, personnel, management systems, the ability to analyze legal and regulatory requirements for the objects of conformity assessment, skills for examining applicants' documents for compliance, conducting an external audit, drawing up a plan and results of an audit, and carrying out inspection control		LO4 LO6
Scientific and Pedagogical Basis of the System of Standardization and Certification			Research Practice	Knowledge and understanding of the latest theoretical, methodological and technological achievements of domestic and foreign science in the field of standardization and certification, the laws of technical regulation processes in various industries. the ability to establish a connection between the basic sciences, on which standardization and certification are based, skills to perform experimental research on the topic of the thesis in accordance with an individual plan.	12	LO2 LO3 LO4 LO5 LO6 LO7
The Main Business Processes			Master Research	Conducting research, according to the plan of the	24	LO1

of MS ISO 9000 Series				academic period with the use of regulatory, technical base of the laboratory of the department. The use of information technology and computer programs in the performance of final qualifying work. Selection and justification of the methodology of research in accordance with the theme of the master's thesis. Determining the practical results of a master's thesis. Formation of conclusions for all sections of the work.		LO2 LO3 LO4 LO5 LO6 LO7
Module of Final Attestation			Execution and Defense of Master Thesis	The final qualification work of the graduate of the master's program, confirming acquired in the process of learning competence in the field of scientific and pedagogical knowledge of standardization, certification and quality management in various industries The master's thesis is defended at an open meeting of the State Examination Commission with the participation of the chairman of the commission and at least half of its composition. The procedure and regulations for the protection of a master's thesis are established by the chairman.	12	LO2 LO3 LO4 LO5 LO6 LO7
Total					**120**	

AGREEMENT SHEET

by Education Program code 7M07510-"Standardization and Certification"
(by industry)

Director of IPE _____ Konarbaeva Z.K.
Sign

Head of ASD _____ Zhanabay N.Zh.
Sign

Head of DNPiK _____ Bazhirov T.S.
Sign

Appendix 1

REVIEW

on the educational program 7M07510-"Standardization and Certification" (by industry), developed in M.Auezov SKSU, Shymkent

1. Brief description of the company and its profile

Preparation of masters in EP 7M07510-"Standardization and certification" (by industry) Department is conducted since 2010. Branch of the Republican state enterprise in Turkestan region and Shymkent, which is the national body for standardization of the Republic of Kazakhstan cooperates with the Department of "Standardization and certification" on the basis of concluded with SKSU. M. Auezov Memorandum of cooperation, ESCS, within the activities of the Department for training in the field of standardization, certification, accreditation and quality management for enterprises and organizations of all sectors of the economy of the region.

2. Relevance and relevance of EP

The relevance of the EP is due to the need to train scientific and pedagogical personnel in the field of standardization and certification for all sectors of the economy in connection with the increasing role of standardization and certification systems in the development of domestic production, its competitiveness in regional and world markets. The presence of high-quality systems of standardization and certification of any country indicates a high level of the socio-economic sphere of society and is a tool for improving the competitiveness of the national economy. Kazakhstan's accession to the WTO makes it necessary to develop and introduce methods and principles of standardization, harmonized with international rules and regulations.

A very important element in the development of standardization and certification systems is the presence of specialists with knowledge and competences in this field. EP allows you to acquire such knowledge and competencies, as it clearly traces the relationship between learning outcomes and competencies with the demands of the labor market.

The educational program contains the results of training and competence, namely:

- integrate knowledge, use it to solve analytical and management problems in the field of standardization and certification in a new model of economic growth based on innovation, development of knowledge-intensive industries, information technology
- to work on the formation of a regulatory framework for new innovative products, services, processes, updating of existing regulatory documents with the involvement of modern information technologies
- summarize the results of research and analytical work in the field of standardization and certification in the form of articles, reports, analytical notes, etc .;
- conduct scientific analysis and solutions of practical problems in the organization and management of activities to improve the quality of products, services, works and processes based on standardization and certification methods.

The EP has introduced such disciplines as the scientific aspects of organizing research in the field of standardization and certification, methods of teaching special disciplines in the field of standardization and certification, development and harmonization of regulatory documents, modern methods of testing and quality control, quality engineering

3. Availability of components that develop practical skills

The content of the EP is aimed at training specialists who are able to adapt in the new environment and use innovative approaches to solve problems of standardization and certification, develop technical regulations, various international management systems and introduce them into the practice of domestic enterprises and organizations.

4. Content of the educational program (modules, disciplines)

The educational program contains modules that form the skills and competencies in the field of scientific foundations of standardization systems and certification in priority sectors of the economy, the implementation of international management systems, personnel management,

technical regulation, practical aspects of quality and safety management of products, processes and services, the formation of scientific and technical base of standardization and certification for new innovative products and technologies, pedagogical training, professional foreign language, allowing to solve professional tasks of scientific and pedagogical direction in the field of standardization, certification, accreditation and quality management.

5. Conclusion on EP

The educational program 7M07510- "Standardization and Certification" (by industry) is aimed at preparing masters of scientific and pedagogical direction in the field of standardization and certification, who are able to use appropriate methods to conduct detailed studies and technical issues in accordance with their level of knowledge and understanding, plan and conduct analytical, imitation and experimental studies, explore ways to use the latest technologies in the field of their activities, apply engineering methods, testing equipment, computer and mathematical modeling, national, international and regional standards, technical literature and information sources, to solve broader non-technical problems in the field of management practices: ethical, environmental, economic and social problems, to teach in colleges and universities specialty.

Director of BTSH RSE "Kazakhstan Institute of standardization and certification" Beiseev S.A.

Appendix 2

Expert conclusion

for the educational program 7M07510-"Standardization and certification»
(by industry)

1. The relevance of the EP due to the necessity of training scientific and pedagogical personnel in the field of standardization and certification for their implementation of the strategic program of industrial-innovative development of the Republic of Kazakhstan in the field of standardization and certification, aimed at eliminating technical barriers to trade to create conditions for integration into the international system of standardization and conformity assessment, implementation of innovations and development of high-tech industries, and promoting the transfer of technologies and best practices.

2. Compliance EP formulated goals consistent with the mission of the University, the needs of employers and undergraduates

The EP corresponds to the goals set forth in it and is consistent with the mission of M. Auezov SKSU for the training of scientific and pedagogical personnel in the field of standardization and certification based on advanced knowledge and achievements of science and technology.

The presented goals of the EP are formulated and concretized in the context of the demands of the labor market, stakeholders, undergraduates, as they are formed on the basis of Dublin descriptors and expressed through the competence: in the field of professional foreign language, social (interpersonal, intercultural, civil), fundamental scientific and pedagogical training in the field of standardization and certification, additional and professional competencies in the field of standardization, certification, technical regulation, quality management of products, services, processes, management systems.

Requests of employers are specified in order to reflect the potential of EPs to provide undergraduates with solid training in the field of the scientific foundations of standardization and certification, which will allow them to successfully compete in the labor market in all relevant areas, ranging from a standardization and certification specialist to a highly qualified teacher in high school and colleges of the country. The branch of the Republican State Enterprise “Kazakhstan Institute of Standardization and Certification”, heads of enterprises and organizations of the specialty profile took an active part in the development of the educational program.

2. Compliance with the National Qualifications Framework of the Republic of Kazakhstan

The national qualifications framework contains eight qualification levels, which corresponds to the European qualifications framework and educational levels defined by the Law of the Republic of Kazakhstan “On Education”. The educational program 7M07510-“Standardization and Certification” (by industry) corresponds to the seventh level of qualifications of the NQF of the Republic of Kazakhstan and is necessarily coordinated with potential employers.

1. Reflection in the EP, learning outcomes and competencies based on Dublin descriptors embedded in professional standards/ industry frameworks.

The educational program contains learning outcomes and competencies based on Dublin descriptors, namely:

A. knowledge and understanding;

B. the use of the knowledge and understanding abilities;

C. ability to make judgements and draw conclusions;

D. communication skills;

E. skills in the field of training, taking into account the second level of training (master's degree), as provided by the Bologna process, which allow undergraduates in this area to acquire specialized competence:

Ability to apply and adapt knowledge through conceptual understanding of relevant disciplines;

Ability to understand problems from a global perspective;

Ability to adapt to new conditions and use innovative approaches to solve problems in the field of standardization, certification and quality management;

Ability to critically analyze and question knowledge in a specialized field;

Ability to demonstrate knowledge of theories, models and tools related to standardization and certification of technologies, processes, products, services.

Sectoral qualifications framework for standardization (project) is in the process of coordination and approval, the EP will include recommended titles of the graduates in this EP graduate.

1. Compliance with SCSE, TRP

The content of the educational program in terms of structure, content and volume is fully consistent with the SCSE approved by the PP of the Republic of Kazakhstan dated 23.08.2012. No. 1080, with changes and additions of October 31, 2018 No. 604.

The EP is developed in accordance with the regulatory documents of the MES, including the curriculum, according to the rules of modular structuring, competence approach and accounting for the results of the development of modules and the entire modular curriculum in KZ credits.

The curriculum is based on the principles of continuity, continuity and adaptability, contain a list of disciplines, the number of credits, placement by semester, types of classes and forms of control. Along with this, the volume of loans, SIW, research and teaching practices, RWS are reflected. Structure and content of EP, application of the modular principle of their construction.

The educational program 7M07510- "Standardization and Certification" (by industry) implemented a modular training system. It helps to solve the problems of systematization of knowledge, their best assimilation, and consists in dividing information into specific doses — modules causing the necessary controllability, flexibility and dynamism of the learning process. The module is not only a section of the educational program, but also a system based on the interaction of various techniques and methods of educational activity, ensuring the integration of this module into a complete system of education.

4. The presence in the EP of the components to prepare for professional activities, developing key competencies, intellectual and academic skills, reflecting the changing requirements of stakeholders.

5. EP is aimed at obtaining professional and educational competencies, such as: general education, socio-ethical, economic and organizational and managerial, special and professional competencies that develop undergraduates readiness to change social, economic, professional roles, geographical and social mobility in conditions of increasing dynamism of change and uncertainty.

6. The logical sequence of disciplines and the reflection of the basic requirements in the curricula and training programs. The sequence of modules / disciplines in the EP is logically justified, the principles of ensuring continuity, continuity, accessibility and consistency of the content of education in the curricula and curricula of disciplines are implemented.

7. Reflection in the EP of the system of accounting of the academic load of undergraduates and teachers in loans, its compliance with the parameters of the credit system of education. The EP reflects the system of accounting for the academic load of undergraduates and teachers in credits, through the formation of a summary table, reflecting the amount of credits used in the context of the modules of the educational program and in the form describing the structure of the module, including the number of credits for its development.

8. The presence in the programs of professional practices - pedagogical and research to consolidate the theoretical material expressed in the academic load in the credits.

In the EP there is a section "Providing professional practices: their types, main typical places for organizing and conducting, evaluating results" which reflect the goals, objectives and results of professional practices for graduate students of EP, the study load in the credits is given in the summary table reflecting the amount of credits practiced in terms of modules of the educational program.

9. Qualifications obtained as a result of the development of EP

Qualifications obtained as a result of the development of EP - Master of Technical Sciences in EP 7M07510-Standardization and Certification (by industry).

Chairman of the expert committee:
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