

CENTRAL ASIAN ASSOCIATION FOR ACCREDITATION OF EDUCATION
CAAAE

Approved by the
Accreditation Council



**ACCREDITATION STANDARDS
OF EDUCATIONAL PROGRAMS TECHNICAL AND VOCATIONAL EDUCATION**

Almaty, 2024

INTRODUCTION

These standards and the procedure for accreditation of educational programs have been developed by the Central Asian Association for Educational Accreditation (CAAAE) in order to ensure high-quality training for technical and vocational education specialists (hereinafter referred to as TVE). Compliance with standards should guarantee quality and contribute to the improvement of educational programs of TVE organizations.

The CAAAE standards and accreditation procedure have been developed taking into account international experience in assessing the quality of technical and vocational education and in order to meet the requirements for the quality of specialist training by the accreditation systems of the Washington Agreement member countries and the requirements of the European Network for Accreditation of Engineering Education ENAEE¹.

The CAAAE standards are focused on evaluating the achievement of planned learning outcomes. Learning outcomes are a set of competencies, knowledge, skills, and methodological culture acquired by students upon completion of the educational program.

A prerequisite for the accreditation of the program is the confirmation of the achievement of the planned learning outcomes by all students completing their studies in the educational program and the graduates' readiness for professional activity in accordance with the objectives of the program.

The learning outcomes are planned based on the objectives of the educational program and must comply with the requirements of the CAAAE presented in the Accreditation Standards. The objectives of the educational program are formulated by the TVET organization implementing the program, and must be consistent with the requirements of the state TVET Standards of the Republic of Kazakhstan, the educational standards of the relevant countries, and the Mission of the TVET organization.

Educational programs approved by the authorized bodies in the field of education in the Republic of Kazakhstan and licensed by the authorized bodies of the respective countries are accepted for accreditation.

An educational program can be accredited only if it meets all the criteria listed below.

¹ ENAEE (European Network for Accreditation of Engineering Education) – the organization that coordinates the functioning of the pan-European accreditation system for engineering education, established with the support of the European Commission; has the right to assign the EUR-ACE®: <http://www.enaee.eu>.

ACCREDITATION STANDARDS

The main provisions

1. Scope of application

1.1. These standards and criteria have been developed in accordance with the Law of the Republic of Kazakhstan "On Education" (Article 9-1, paragraph 5) and the Law of the Republic of Kazakhstan "On Accreditation in the field of conformity assessment" (dated July 05, 2008, No. 61-IV. They establish regulatory requirements for standards and criteria for specialized accreditation.

1.2. These standards define the requirements for TVE organizations and specialized accreditation.

1.3. These standards and criteria are applied during the procedure of specialized accreditation of a TVET organization.

1.4. The provisions of these standards are applied by the organizations of the TVE of the Republic of Kazakhstan regardless of their status, organizational and legal forms, forms of education and departmental subordination.

1.5. These standards can be used for internal and external assessment (audit) of the activities of TVE organizations.

2. Regulatory references

References to the following regulatory documents were used:

- 2.1 Закон Республики Казахстан от 27 июля 2007 года № 319-III «Об образовании» (с изменениями и дополнениями от 04.07.2018 № 171-VI)
- 2.2 Закон Республики Казахстан от 8 августа 2002 года N 345 «О правах ребенка в Республике Казахстан»
- 2.3 Закон Республики Казахстан от 11 июля 1997 года № 151 «О языках в Республике Казахстан»
- 2.4 Государственная программа развития образования РК на 2011-2020 годы. Указ Президента РК от 7 декабря 2010 г. № 1118.
- 2.5 Стратегический план развития Республики Казахстан до 2020 года, утвержденный Указом Президента Республики Казахстан от 1 февраля 2010 г. №922.
- 2.6 О техническом регулировании. Закон РК от 9 ноября 2004 г. № 603-III ЗРК (с изменениями и дополнениями от 16.02.2012 г.).
- 2.7 Постановление Правительства Республики Казахстан от 24 июля 2018 года № 460 «Об утверждении Государственной программы развития образования и науки Республики Казахстан на 2016 – 2019 годы»
- 2.8 Постановление Правительства Республики Казахстан от 23 августа 2012 года №1080 «Об утверждении государственных общеобязательных стандартов образования соответствующих уровней образования» (с изменениями и дополнениями от 15 августа 2017 года № 484 Постановления Правительства Республики Казахстан).
- 2.9 Приказ Министра образования и науки Республики Казахстан от 18 октября 2018 года № 578 «Об утверждении Типовых правил приема на обучение в организации образования, реализующие образовательные программы технического и профессионального образования»
- 2.10 Постановление Правительства Республики Казахстан от 30 января 2008 года №77 «Об утверждении Типовых штатов работников государственных организаций образования и перечня должностей педагогических работников и приравненных к ним лиц».
- 2.11 Приказ Министра образования и науки Республики Казахстан от 17 июня 2015 года № 391 «Об утверждении квалификационных требований, предъявляемых к образовательной деятельности, и перечня документов, подтверждающих соответствие им»

- 2.12 Приказ Министра образования и науки Республики Казахстан от 15 апреля 2015 года № 204 «Об утверждении стандарта государственной услуги "Выдача лицензии на занятие образовательной деятельностью»
- 2.13 Приказ Министра образования и науки Республики Казахстан от 11 сентября 2013 года № 369 «Об утверждении Типовых правил деятельности видов организаций технического и профессионального, послесреднего образования»
- 2.14 Приказ и.о. Министра образования и науки Республики Казахстан от 23 октября 2007 года № 502 «Об утверждении формы документов строгой отчетности, используемых организациями образования в образовательной деятельности».
- 2.15 Приказ Министра образования и науки Республики Казахстан от 20 января 2015 года № 19 «Об утверждении Правил перевода и восстановления обучающихся по типам организаций образования».
- 2.16 Приказ Министра образования и науки Республики Казахстан от 18 марта 2008 года № 125 «Об утверждении Типовых правил проведения текущего контроля успеваемости, промежуточной и итоговой аттестации обучающихся»
- 2.17 Приказ Министра образования и науки Республики Казахстан от 31 октября 2017 года № 553 «Об утверждении типовых учебных планов и типовых образовательных учебных программ по специальностям технического и профессионального образования»
- 2.18 Приказ Министра образования и науки Республики Казахстан от 31 октября 2018 года № 604 «Об утверждении государственных общеобязательных стандартов образования всех уровней образования»

3. Terms and definitions

The definitions of the terms used by the CAAAE in the accreditation of the educational program are given below.

3.1. **Accreditation body:** a legal entity that conducts institutional and/or specialized accreditation of educational organizations based on standards (regulations) developed by it.

3.2. **The accreditation of an educational program** is a process aimed at ensuring the quality of specialist training. The process includes the identification of the strengths and weaknesses of the educational program, performed by the staff of the TVE organization, and the audit of the educational program by a commission of independent experts, the development and implementation of measures to improve it, and public recognition of the quality of the educational program.

3.3. **Audit of the educational program** – evaluation of the program by a commission of independent experts based on the study of self-assessment materials and a visit to a TVE organization, pursuing the goals: To identify the strengths and weaknesses of the educational program; Evaluate qualitative factors that cannot be adequately described in the self-assessment materials; To verify the adequacy of the information provided by the TVET organization in the self-assessment materials.

3.4. **Information resources** - a set of library collections, electronic educational materials and other available educational and methodological support.

3.5. **Qualification** – the level of preparation for the competent performance of a certain type of activity in the acquired specialty;

3.6. **Qualification characteristic** is a document defining generalized requirements for the personality and professional competence of a specialist. This is a model of an employee's personal potential to perform certain work that requires professional training.

3.7. **Higher College** is an educational institution that implements integrated modular educational programs of technical and vocational, post-secondary education (VET and PO).

3.8. **College** is an educational institution that implements educational programs of VET and PO.

3.9. **Credit technology of learning** – learning based on students' choice and independent planning of the sequence of studying disciplines (modules) using credit as a unified unit of measurement for the volume of academic work of a student and a teacher;

3.10. **Criteria** – a requirement (or a set of requirements), according to which the quality of specialist training is assessed. This term refers to the criteria for accreditation of educational programs in the field of engineering and technology of the Association of Engineering Education of Kazakhstan.

3.11. **Quality management** is a coordinated management and management activity in relation to quality.

3.12. **Mission statement** is a statement that reveals the organization's understanding of the meaning of its existence and activities, which, in particular, declares its difference from similar ones. On the basis of the mission, the strategy and goals of the TVET organization, the goals of specific educational programs are determined. The mission of a TVET organization should be formulated taking into account the requirements of potential consumers.

3.13. **The method of evaluating learning outcomes and achieving program goals** is a method of collecting and accumulating data for subsequent analysis and determining the degree of achievement of program goals and results.

3.14. **The curriculum model** is a form of presentation of the curriculum, reflecting the main invariant structural components of the content of technical and vocational education.

3.15. **The module** is a logically structured, meaningful and methodologically integral part of the educational process.

3.16. **Modular learning** is a learning system involving the study of materials in the form of separate interrelated blocks aimed at the formation of specific professional competencies.

3.17. **Modular competence approach** is a course training program containing a methodology for implementing new educational programs for training a competitive specialist in the system of technical and vocational education

3.18. **Monitoring of educational services** is the collection and analysis of data on the processes and procedures of educational activities.

3.19. **The standard term of study** is the term for mastering an educational program for a specific form of study (full-time, evening, correspondence).

3.20. **An educational program** is a single set of basic characteristics of education, including the goals, results and content of education, the organization of the educational process, and criteria for evaluating learning outcomes.

3.21. **Assessment** is the determination of the degree to which the educational objectives of the program have been achieved, the learning outcomes of students, and the identification of actions to improve the educational program.

3.22. **The list of professions and specialties** is a systematic register of professions and specialties that defines the most general parameters of training (specialty profile, professional qualification level, duration of training depending on basic education).

3.23. **Professional competence** is the ability of a specialist to solve a set of professional tasks based on knowledge, skills and abilities, as well as personal qualities that allow him to effectively carry out professional activities.

3.24. **Vocational education** is a type of education aimed at students acquiring knowledge, skills, and competencies that allow them to conduct professional activities in a particular field and/or perform work in a specific profession or specialty.

3.25. **Production activity**: Performing scientific work on orders from manufacturing enterprises, organizations and firms, within the framework of business contracts.

3.26. **Consumer**: An organization or person receiving products or services (students, their parents, employers, the state).

3.27. **Work qualification** - the degree of professional readiness of Students who have passed the final certification for mastering the educational program of technical and vocational education for training in one or more specialties.

3.28. **Self-assessment** is a self-analysis of the advantages and disadvantages of a VET organization, including an analysis of the achievement of stated goals in the field of training specialists and compliance with established accreditation Standards.

3.29. **The educational program quality management system** is a system for developing policies and goals in the field of educational program quality, methods and means of achieving these goals.

3.30. **Specialized (program) accreditation** – the accreditation of individual educational professional programs.

3.31. **Technical and vocational education** – education aimed at training qualified workers and mid-level specialists.

3.32. **Customer satisfaction** - consumers' perception of the degree of fulfillment of their requirements.

3.33. **Efficiency** is the ratio between the achieved result and the resources used.

3.34. **Experimental educational programs** are programs aimed at testing new learning technologies and introducing new educational content.

3.35. **The objectives of the educational program** are a set of knowledge, skills, and methodological culture that graduates of the educational program should possess.

3.36. **Dual training** is a type of professional education in which the practical part of the training takes place at the workplace, and the theoretical part - on the basis of an educational organization.

4. Principles of specialized accreditation of technical and vocational education organizations

The presented standards of quality assurance of TVET are based on the following principles:

- 4.1 The TVE organization's accreditation procedure is conducted on a voluntary basis;
- 4.2 The external assessment is conducted objectively, transparently and independently of third parties, etc.;
- 4.3 The information provided by the TVE organization is used confidentially by the CAAAE;
- 4.4 Informing the public of the country and abroad about accredited TVET organizations is carried out by submitting information by the agency to the Ministry of Education and Science of the Republic of Kazakhstan and the authorized body of the respective countries by posting on the CAAAE website.

Standard 1. Objectives of the educational program

1.1 The educational program must have:

1.1.1. Clearly formulated and documented goals that are consistent with the educational standards of the VET, the Mission and meet the needs of potential consumers of the program.

1.1.2. The objectives of educational programs should describe the professional characteristics of qualifications. The KazSEE assessment method focuses on the learning outcomes of the program. The educational program, depending on the content and level of qualifications of students in accordance with the National Qualifications Framework, should be aimed at mastering:

1) competencies for the implementation of executive and managerial activities, providing for independent planning, task definition, organization and control of the implementation of the norm by subordinate employees within the framework of the educational process and the company's business strategy, assuming responsibility for the fulfillment of tasks and the achievement of the final result;

2) the ability to independently apply objects and tools, make decisions on the simplest tasks, create conditions for their implementation, specify the tasks received;

3) knowledge about the technologies of transformation of the subject, planning and organization of work, independent performance of tasks, assign tasks to subordinates, evaluate and analyze the results of their activities, motivate the improvement of professionalism of subordinate employees in typical situations of professional activity, approaches, principles and methods of setting and solving

professional tasks, ethics and psychology of relationships, reflection of thinking and activity, methods of motivation and stimulation of work, methodology of system analysis and design of professional situations, management decision-making methods.

1.1.3. An effective mechanism for ensuring the achievement and adjustment of goals.

1.2. The educational program should provide comprehensive information about all its modules, including syllabuses, work curricula, learning outcomes, teaching and learning methods, credit allocation, module assessment method, and other program requirements. The degree and the name of the program correspond to the content of the educational program and the objectives of the program.

Standard 2. Program content

2.1 The educational program should have clearly formulated and documented learning outcomes that are conceptually consistent with the objectives of the educational program.

2.2 The educational program must comply with the legislation of the Republic of Kazakhstan in the field of education.

2.3 The structure of the educational program should correspond to the curricula, the mechanism for ensuring the accessibility of courses for students with special needs, the integration of the latest scientific developments, the description of interdisciplinary courses should be reflected, and it should cover the relevant blocks in terms of time and content of curricula.

2.4 The teaching staff, material and technical equipment must meet the qualification requirements for licensing educational activities.

2.5 The total amount of study time for full-time theoretical studies is determined based on the calculation of the mandatory study load of at least 36 hours per week.

2.6 The curriculum and work program of each discipline should correspond to the objectives of the educational program and ensure the achievement of learning outcomes by all graduates of the program.

2.7 The standard time limit for mastering an educational program is set depending on the complexity of the expected skill level, as well as regulatory legal acts of the Republic of Kazakhstan and other countries. The basic level of education of students must meet the requirements of the State Educational Standard.

2.8 The module of general professional and special disciplines should ensure the completeness of the training necessary to carry out professional activities in accordance with the objectives of the educational program.

2.8.1 The study of general professional and special disciplines should ensure the ability to apply them in practice.

2.8.2 Training should promote the development of students' creative thinking and skills that allow them to solve special tasks using the acquired knowledge and an original approach.

2.8.3 A mandatory component of the educational program is practical training – (laboratory and practical exercises, industrial training, professional practice, course and diploma design) is at least 40% of the total amount of study time in the module (qualification).

2.9 The training program must be completed: by passing exams in general professional and/or special disciplines, including those integrated into modules, or by completing and defending a thesis project (work), or by completing and defending a thesis with passing a final attestation exam in one of the special disciplines, including those integrated into a professional module.

2.10 Learning outcomes must comply with the requirements of the State Educational Standard

Standard 3. Students and the learning process

3.1 Students are the main consumers of the educational program, so the learning process should ensure that they achieve learning outcomes. And the assessment of students' competencies is one of the most important elements of the educational program implementation.

3.2 The educational program should have a mechanism that ensures continuous monitoring of the organization of the learning process and provides feedback for its improvement.

3.3 An effective system of academic support for students should be in place in a TVET organization.

3.4 A TVET organization should participate in WorldSkills, an international non—profit movement aimed at increasing the prestige of working professions and developing skills.

Standard 4. Teaching staff

4.1 The teaching staff is the main resource of the educational process and should be represented by specialists in all fields of knowledge covered by the educational program. The qualifications of teachers and masters should correspond to the profile of the educational program and the disciplines taught.

4.2 The TVET organization should have a system for supporting the professional growth of teachers.

4.3 An important factor is the participation in the educational process of qualified specialists from production who have a basic higher education corresponding to the profile of the educational program.

4.4 Teachers should have the following qualifications:

4.4.1 The teaching staff should have a basic education corresponding to the educational program and systematically improve their skills through additional education, internships, etc.

4.4.2 The teaching staff must have work experience in the relevant educational program of the industry.

4.4.3 The teaching staff should participate in the process of improving the educational program as a whole and its individual disciplines in accordance with internal quality assurance mechanisms.

4.4.4 Teachers' participation in professional societies, receiving scholarships and grants, and membership in academies is an advantage.

4.5 Teachers must periodically undergo certification and actively participate in the development and implementation of research projects.

Standard 5. Preparation for professional activity

5.1 The entire period of preparation for the educational program should be aimed at preparing students for the specialty. The experience of mastering a qualification or specialization should be formed in the process of theoretical training, practical and course work, and projects.

5.2 The educational program should ensure that all students achieve the learning outcomes necessary for the professional activities described in Appendix A.

5.3 A VET organization should have a mechanism for evaluating learning outcomes in the educational program as a whole and in individual disciplines.

Standard 6. Material and technical base

6.1 The logistical support of the VET organization is sufficient and corresponds to the educational program being implemented.

6.2 Classrooms, laboratories and their technical equipment must be modern and comply with the requirements of the State Educational Standard.

6.3 Students should have sufficient opportunities for independent work.

6.4 The TVET organization should constantly update, improve and expand the material and technical base.

Standard 7. Information support

7.1 The information support of the TVET organization must comply with the requirements of the State Educational Standard.

7.2 A TVET organization should have a library containing the materials necessary for training: educational, technical and reference literature, various periodicals, etc. The library collection and reading rooms should be accessible to students.

7.3 Students and teachers should have computer classes with access to information resources (local network, Internet). The TVET organization must monitor the availability and use of these resources.

7.4 The TVET organization should constantly update, improve and expand the information base.

Standard 8. Finance and Management

8.1 The financial support of the training program should be aimed at improving the quality of the educational program and should correspond to the licensed indicators.

8.2 The training and support staff and the administrative and economic activities of the VET organization must meet the needs of the educational program.

8.3 The management of the VET organization should be effective and ensure the improvement of the educational program.

8.4 One of the factors is the availability of a quality management system certified by independent organizations in the TVE organization.

8.5 The TVET organization should have an internal quality control system based on the State TVET Standard.

Standard 9. Graduates

9.1 The VET organization should systematically monitor the employment of graduates and their demand in the labor market. There should be a survey of graduates and employers about the quality of training for students in this educational program.

9.2 The data obtained should be used for further improvement of the educational program.