«АККРЕДИТТЕУ ЖӘНЕ РЕЙТИНГТІҢ ТӘУЕЛСІЗ АГЕНТТІГІ» КЕМ

НУ «НЕЗАВИСИМОЕ АГЕНТСТВО АККРЕДИТАЦИИ И РЕЙТИНГА»

INDEPENDENT AGENCY FOR ACCREDITATION AND RATING

REPORT

THE RESULTS OF EXTERNAL EXPERT COMISSION VISITING ALMATY ACADEMY OF ECONOMICS AND STATISTICS

EDUCATIONAL PROGRAMS SPECIFIC SUBJECT MATTER ACCREDITATION

5B070300 – INFORMATION SYSTEMS

INDEPENDENT AGENCY FOR ACCREDITATION AND RATING
"IAAR"

External Expert Commission

To: IAAR Council for Accreditation

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5B070300 – INFORMATION SYSTEMS

November 19 – 21, 2015

Almaty

The External Expert Commission (EEC) has performed compliance assessment of educational programs of Almaty Academy of Economics and Statistics (AAES) as per the clusters of educational program: "5B070300 – INFORMATION SYSTEMS" during the period of November 19 to November 21, 2015 in accordance with the Order No.1067 issued by the Independent Agency for Accreditation and Rating on November 11, 2015. The report of EEC includes the assessment of compliance of presented educational programs of higher educational institution with the IAAR criteria, the EEC recommendations on further improvement of educational programs and subject matter parameters of AAES educational programs.

EEC composition:

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3. Expert – Galiya R.Kirillova, Candidate of Philological Sciences, Associate Professor, the Kazakh National Pedagogical University named after Abai;
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5. Student – Maksat Rakhmetov, 3rd Course Student of University of Foreign Languages and Business Career (Almaty);
6. Agency observer – Zhanzira I.Shalabayeva, Project Manager on Post-Accreditation Monitoring of IAAR.

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1. PRESENTATION OF ALMATY ACADEMY OF ECONOMICS AND STATISTICS AND EDUCATIONAL PROGRAMS

"Almaty Academy of Economics and Statistics" Closed Joint-Stock Company (hereinafter referred to as AIES) has been established under the Decree No.19 issued by the Government of the Republic of Kazakhstan on January 11, 1999 through the reorganization of the "Institute for Training, Retraining and Advanced Training of the personnel of the National Statistical Agencyof the Republic of Kazakhstan" (ITR and AT).

The late changes in the legal status of AAESfor the reviwed period are as follows:

1. Reorganization of "Almaty Institute of Economics and Statistics" CJSC in "Almaty Academy of Economics and Statistics" OJSC (Registration No.25395-1910-AO dated 29.03.1999).

2. Reorganization of"Almaty Academy of Economics and Statistics" OJSC in "Almaty Academy of Economics and Statistics" Institution (Registration No.70438-1910-У-е dated 17.05.2005).

The activities of "Almaty Academy of Economics and Statistic" Institution are carried out in compliance with the Law of the Republic of Kazakhstan "On Education", regulatory documents, instructive letters and orders issued by the Ministry of Education and Science RK, and Charter approved by the Order No.414 issued by the Office of Justice of Auezov district of Justice Dpt. of the city of Almaty of the Ministry of Justice RK on 06.03.2014 (with changes and amendments in the foundation documents).

The main objective of AAES is to implement the educational programs of higher professional and post graduate professional education, performance of scientific programs of fundamental and applied nature as well as personal development of students.

Since the establishment, the Academy sets a goal to provide highly trained professionals able to satisfy the needs of employers and take an active part in further innovation of the Republic of Kazakhstan.

AAES Institution is a subject of higher professional education of the Republic of Kazakhstan and acts on the basis of Charter approved by theOrder No.414 issued by the Office of Justice of Auezov district of Justice Dpt. of the city of Almaty of the Ministry of Justice RK on 06.03.2014 (Certificate of State Reregistration of Legal Entity No.70438-1910-У-е dated May 17, 2005).

The Academy provides training and retraining of specialists in the field of economics, management, finance, accounting and auditing, marketing, information systems, statistics under Bachelor's and Master degree courses.

The total number of the faculty members according to the staff schedule is 134 people as of October 01, 2015. The proportion of regular lecturers – is 116 people (86,5%), 67 doctors and candidate of sciences, professors, associate professors, 29 employees are the masters of science. The training is conducted in 4 chairs on 7 directions of Bachelor degree course and 4 directions of Master degree course (License No.0137402 dated 03.02.2010).

Higher professional educational is both as intramural and extramural, including reduced educational program and on the basis of higher education. Term of apprenticeshipis 2 to 4 years depending on the mode of study.

In 2013, 5 lecturers have completed the scientific internship in the Russian Federation and Republic of Belarus through the international grant of "Bolashak" of N.Nazarbayev, the President of the Republic of Kazakhstan. Starting from 2005, the lecturers of our Academy are participating in the competition"The best lecturer of higher educational institution of Kazakhstan" on a regular basis. And Ye.Kubayev, Doctor of Economics, Professor and G.Madiyarova, Associate Professor have become the holders of this grant within the context of this competition.

More than 30 ths. specialists have graduated from the Academy since the moment of its establishment and whosuccessfully work in the RK Presidential Administration, RK Government, city and oblast akimats, tax administrations, statictical dpts., financial structures

and hold key positions in large companies.

In 2010, the Academy has signed the Great Charter of Universities (Bologna, Italy). In 2010, the Academy has obtained the institutional accreditation of the National Accreditation Cnter of MES RK.

AAES participates in General rating ofhigher educational institutions of the country (NKAOKO) on an annual basis. Academy was the 9thin 2011 and the 15th in 2012 among the privatehigher educational institutions of the Republic of Kazakhstano.

At present, the composition of AAES includes 4 chairs, research and development centre and publishing centre. AAES has sufficient infrastructure consisted of 2 educational buildings, 2 halls of residence, 1 catering facility, sports hall and assembly hall. Training and laboratory bse of Academy includes special-purpose rooms and laboratories, classrooms, ICT rooms, electronic learning resources hall and reading-hall.

The academy positions itself as the competitive higher educational institution which is possessing the effective system of corporate management, creating and successfully realizing innovations in science and education and providing high quality of education and personal development. Mission of Academy is the preparation of highly qualified specialists of all levels in various branches of economy according to the international standards by means of introduction of progressive educational technologies, system of online learning and improvement of intra-high school management.

In 2014, "The strategic AAES development plan for the period of 2015-2020" has been embraced. The backgrounds of this planwere based on the purposes, objectives and target indicators specified in GPRO of the Republic of Kazakhstan for the period of 2011-2020, the State program of the forced industrial and innovative development of the Republic of Kazakhstan for the period of 2010-2014. The strategic development plan of AAES for the priod of 2015-2020 has been elaborated in the light of the Message of the President of the Republic of Kazakhstan –N.A.Nazarbayev, the Leader of Nation, to the people of Kazakhstan "Strategy "Kazakhstan-2050" - the new political policy of established state". Collegial bodies of management work in the Academy: Board of Studies, Rector's Office, Education Board and Council of Young Scientists. The Committee for Matters Concerning Young Persons is created and functions in the Academy. All main issued of the Academy functioning and development of its educational system are discussed at the meetings of collegial bodies of management, during which the main decisions are made. The general AAES management is performed by the Board of Studies. Heads of structural divisions, leading professors and associate professors, employers, representatives of students and master's degree students are involved in the performance of work of collegial bodies.

Educational activity of faculty members is followed by activities of special divisions (departments of the academic work, master's degree program and activities with the research and pedagogical personnel on science and innovations, information and technical provision, service of registration and mobility, sector of career and business partnership). In addition, the structure of AAES management includes such general administrative divisions as human resources department, publishing center, administrative-and-household, accounting department, library, civil defense and emergency unit.

The enrollment of students in 2015-2016 academic year amounted to 2484 students, master's degree students – 136. In total, the enrollmentof students in the current year amounted to 2620 people.

Table 1. Total enrollment of AAES in terms of courses and modes of study for the period of 2015-2016 academic year

	Mode of study	1st course	2nd course	3rd course	4th course	Total
	Intramural	110	526	818	231	1685
	Extra-mural	295	504	-	-	799

116 regular lecturers work at 4 chairs, where 65 doctors and candidates of science, 2 PhD, 29 masters. 18 lecturers have the honorary titles of the authoritative academic organizations of Kazakhstan and foreign countries.

In 2014-2015 academic year, 4 students of AAES got a grant of the President of Kazakhstan, 2 students are trained at the expense of AAES President Grant.

Each educational program has the development plan, and also an educational trajectory for a year which is approved by the Board of Studies of AAES. Educational programs are focused on implementation of competence-based approach in training according to the National frame of qualifications and aimed at the development and formation of professional and social competences of students. The principle of the academic freedom of higher educational institution is carried out when developing an elective component of the educational programs realized by higher educational institution; elective subjects are introduced in the program by taking into account the opinion of employers, faculty members of AAES and educational needs of students.

The Academy gives much attention to interaction with the employers in respect of training of specialists on an individual educational trajectory for the purpose of their subsequent employment. In 2013-2014 academic year, 40 people were trained in AAES at the expense of the enterprises.

Contracts with 24 foreign higher education institutions and scientific centers on cooperation, including 7 - with higher educational institutions of far-abroad countries and 17 contracts – with higher education institutions of CIS countries. Research center of innovative technologies was opened in Academy in October 2011 and successfully functions for the purpose of activization of research work of higher educational institution, broad attraction of faculty members and students. AAES takes the most active part in competitive programs and scientific projectsfor the purpose of ensuring integration of science, education and production, creation of conditions for commercialization of products of intellectual property and technologies. 5 projects in the amount of 14 mln.40 ths. KZT were carried out in 2012-2014 in Academy, including: fundamental and applied researches – 1 project amounting to 4 mln. KZT; economic researches – 4 projects amounting to 10 mln.40 ths.KZT.Customers of scientific projects are as follows: Head Dpt. of "Committee of Science of MES RK"; Institute of International Economic Relations (IMES, Russian Federation, Moscow), Dpt. of Economy and Budget Planning of Akimat of the city of Almaty.

The research library of Academy is represented by two reading halls, including the reading hall of electronic resources for 10 seats equipped with 10 computers, and hall of catalogs. The fund of library makes 290842 copies of books, more than 99793 names of electronic products. Lecturers and students have opportunity to work with the following modernized databases: "RMEB" (Republican interuniversity electronic library), "Zan", "Paragraph", "Polpred". Also, the agreement with "NTs NTI" JSC on provision of free access to the Uniform electronic library of the Republic of Kazakhstan was concluded. Wi-Fi zones are provided in allthe academic building. AAES updates the material and technical resources on annual basis and improves the educational and laboratory bases for the purpose of modernization of educational and scientific processes of Academy.

3. GENERAL ASSESSMENT OF EDUCATIONAL PROGRAMS

Training of students within the accredited educational programs (hereinafter – EP): “5B070300 - INFORMATION SYSTEMS” is carried out by the chair of informatics.

Training of bachelors according to the accredited programs is carried out in the state and Russian languages in intramural mode of study on the basis of secondary, technical and professional education, and in extra-mural mode of study on the basis of technical and professional education and higher education.

The content of educational programs is based on regulatory and legal acts RK, requirements of State Compulsory Educational Standard and Theoretical Curriculums, and standard regulating documents of the MES RK.

The chair critically approach the analysis of its activity: it performs the assessment of strengths and weaknesses, defines the concept of EP development.

Planning, forecasting, management and implementation of educational programs of the chair is provided according to long-term plans of development and work plan to be approved for each academic year. The circle of issues submitted for the meetings of chairs covers the main directions of their activity. The analysis of work plans and minutes of meetings shows that the issues under consideration correspond to the actual EP objectives, and the decisions made promote the improvement of training of bachelors and sustainable development of higher educationak institution.

4. COMPLIANCE WITH SPECIAL-PURPOSE ACCREDITATION STANDARS

1. Standard “Educational program management”

The general purpose of the considered programs – is the training of specialists in the field of informatics and information technologies able to be competitive in the labor market, demanded by the modern enterprises and market structures, capable effectively to adapt for dynamically changing social and professional conditions of the activity, possessing the high level of readiness for realization of the main professional functions, capable structurally to influence the character and direction of development of the professional spheres of their activity and owning the skills of organizing work and administrative activity.

Achievement of stated goal corresponds to the labor market needs as evidenced by the high percent of employment of graduates and positive responses of employers:

- existence of the formed basic competences: possession of broad general training (basic knowledge) for the solution of practical tasks in the field of information systems and technologies;
- manifestation of personal and social competences such as readiness to use fundamental laws of natural-science disciplines in the professional activity, apply methods of the mathematical analysis and modeling, and theoretical and pilot study.

Sector of career and business - partnership promotes the formation of culture of self-positioning of graduates of EP in a labor market by supporting continuous communications with the employers.

The polling revealed that 79% of respondents estimate the level of availability of the management to lecturers as very good, 21% – as good.

The results of polling of assessment of feedback level of the faculty members with the management are as follows: very good – 48%, and good – 52%.

On question of your relations with the dean's office, and level of its availability, the pollee students answered as follows: 96% - are satisfied, and 4% - are partially satisfied.

Concerning the assessment of level of Academy management availability and responsiveness, the results were as follows: 83% - are satisfied, 14% - are partially satisfied, and 2% - are unsatisfied.

The polling regarding the usefulness of web-site of Academy showed that 84% - are satisfied, and 16% - are partially satisfied.

The chair aims at the following to increase the level of quality of educational activity:

- updating of methodical ensuring of the educational process and assessment of the knowledge level on an annual basis by taking into account the tendencies in education of Kazakhstan;
- introduction of the modern educational technologies;
- introduction of on-line education;
- development of material and technical base (equipment of classrooms).

Educational and methodical documentation of EP is developed in accordance with the state compulsory educational standard, standard programs, work curriculums in the Kazakh and Russian languages. The chairs pay much attention to the organization, assessment and control of solitary work of students.

Educational process includes the use of electronic textbooks, educational literature and courseware on electronic and magnetic media (CD ROM, audio cassettes, videotapes), cases and other modern technologies of training are developed as well. The chair uses the general laboratory and technical base of Academy: computer classes, lecture halls with the interactive and multimedia equipment, and library.

Students have opportunity to participate in actions of educational character. They have an access to the Committee for Matters Concerning Young Persons, Club of the Funny and Inventive, and sports sections.

The forecasts of the region need for experts with the higher education in the field of information technologies for the next 5 years and steadily high employment of graduates (85%) testify to importance of functioning of specialized virtual laboratories and are an indicator of the fact that this direction of activity should be also developed and strengthen by higher educational institution in the future.

Specifics and identity of EP development plans consists in the development of educational trajectories by taking into account the wishes of employers and requirements of their production, for example within the educational program “Information systems”, the student has a possibility to select one of two specializations: Information systems in economy and Corporate information systems.

The main objectives on EP development are as follows:

- comparative analysis of EP existing in the Republic, CIS countries and abroad;
- development and opening new educational trajectories, meeting the modern requirements in the field of information technologies;
- updating of the contents and organization of educational process and improvement of information maintenance;
- ensuring monitoring of EP quality;
- training of highly qualified personnel having profound and fundamental knowledge on informatics and information technologies;
- satisfaction of the needs of the region in highly qualified specialists in the field of IT technologies;
- development of applied branches of science with the involvement of faculty members and students;
- preservation and enhancement of moral, cultural and scientific values of society, patriotic education of youth.

The strategic development plan of Academy for the period of 2011-2015 allows effective and rational use of available resources: personnel potential, material and technical base, information resources, improved partnership with the enterprises and organizations and analyze the competitiveness level in the educational space of the region.

Such types of activities are developed and implemented for the purpose of increase of competitiveness as: definition of the needs of employers, analysis of the requirement of the present time, and analysis of Internet content. Employers in their recommendations proceed from the requirements of their enterprise and market demand. These are first of all the languages supporting programming on the Internet, and C and C++/C#. The Informatics chair prefers to

learn the students these languages on educational programs. When determining the scope of language of study, the faculty members use a method for the formation of "line" of knowledge created in science. So when studying, for example, the language of programming C++, the "line" developed by the Carnegie Mellon University (USA) is served as the basis of the training process. The “line” represents the following sequence: 1. Technology of programming 2. Object-oriented programming 3. Algorithms and their complexity. 4. Technology of software development.

In general, it is traced the systemacity in management of the realized educational programs which is expressed in creation of the necessary collegial bodies on monitoring of the contents quality (department for academic work, sectors of career and business of partnership), adjustments of feedback with students and employers. The assessment of competence of faculty members is performed through the organization of reciprocal visiting of classes and systematic questioning of students that allows to constantly and continuously control and assess the efficiency of teaching.

EPs are are provided with the work curriculums, syllabuses, teaching materials developed in accordance with the normative documents in the Kazakh and Russian languages.

The contents of work curriculums, syllabuses and teaching materials meet the modern requirements of training of specialists and EP specifics. Teaching materials undergo the preliminary expert examination at the meetings of chairs. After preliminary expert examination, the educational and methodical documentation is discussed during the meetings of educational and methodical council of Academy and approved by the Chairman of Educational Methodological Council.

Using the portal www.study.aesa.kz, the students have access to the information concerning the training process: schedule of lectures, practical trainings, laboratory researches, contents and duration of the forthcoming classes.

At the same time, the work curriculum of experts notes that the existing system of planning of educational programs development requires completion.

Experts noted the need for further improvement of educational programs development plans, and provision of more extensive discussion of curricula with all subjects of educational process.

EEC notes that on 6 criteria of this standard, the higher educational institution has strong positions, on 29 criteria satisfactory, 2 criteria assume improvement, including the process of risks assessment and management.

For improvement of educational programs management, the commission recommends:

- carry out the revision of form of the EP development plan for the purpose of specification of activity directions, forecasting of perspective dynamics for the students enrollment formation;
- specify and formalize the mechanism of EP risks identification and management;
- further development of cooperation with the domestic and foreign higher educational institutions which implement similar educational programs.

2. Standard “Specifics of educational program”

Educational programs are developed on the basis of State Compulsory Educational Standard of specialties and coordinated with the mission of higher educational institution and inquiries of the labor market. The specialized chair of informatics implements the EP in specialties: 5B070300 "Information systems" in accordance with NSK coordinated with the European system of qualifications.

Educational program regulates the purposes, expected results, contents, conditions and technologies of realization of educational process, assessment of quality of the graduate training on subject matter of training and includes a complex of educational and standard documentation. This complex includes: the curriculum, schedule of educational process, work programs of courses, subjects, disciplines (modules), programs of educational, production and pedagogical practices and the methodical materials providing realization of the relevant educational credit

technology.

The purpose of cycle of educational disciplines – is the provision of social and humanitarian education on the basis of knowledge of laws of social and economic development of society, history of Kazakhstan, modern information technologies, state language, foreign and Russian languages, as the means of international communication.

The purpose of cycle of basic disciplines consists in the ensurance of profound knowledge of natural-science, all-technical and economic character, as the foundation of professional education.

The purpose of cycle of subject matter disciplines consists in the ensurance of profound theoretical knowledge of practical experience in the area of information systems.

The following curriculums of modules are distinguished in the curriculum of interdisciplinary educational program in specialty “6M060200 –Informatics”:

1st curriculum – “General” module which consists of the "Language module", "Social and philosophical module", "Social legal module";

2nd curriculum – “Interdisciplinary” module which consists of the "Basic mathematical module", "Programming languages module", "Natural-science module", "Modern technologies module";

3rd curriculum – “Specialties” module which consists of the "General professional special module", "Applied informatics module", "Business informatics module";

4th curriculum – “Additional” module which consists of the "Language foreign module", "Information and mathematical module", "Physical and military training module".

The following curriculums of modules are distinguished in the curriculum of interdisciplinary educational program in specialty “6M060200-Informatics":

1st curriculum – “General” module which consists of the "General obligatory module";

2nd curriculum - "In specialty" module which consists of the "Basic module in specialty", "Practical informatics module", "Business informatics module";

The draft of EP curriculum includes the distribution of credits on modules, on cycles of sybjects, on semesters. Formation of modules inside the cycles is based on the standard curriculum where cycles of subjects are established, and subjects of obligatory component and quantity of the credits by cycles and subjects are determined.

When forming the curriculum of methodological educational program it is necessary to consider the ultimate goals, tasks, requirements for educational program preparation level, requirements for the expected results of training. EPs are directed on the solution of the following tasks:

- mastering skills for creation and operation of information systems according to the requirements of the domestic and international standards; training of students for the real activity, work, solution of practical tasks in the course of studying other subjects; training of students for the life in the information space;
- acquisition of knowledge, skills and abilities necessary for implementation of professional activity in the field of informatics and information technologies.

The model of the graduate of EP is developed according to ultimate goals of educational program. The graduate of EP possesses the following types of competences according to this model:

- key (forming, systematizing, research);
- subject (communicative, technological, controlling);
- special (program, intersubject, social, developing, creative, organizational and methodical).

Special objectives of EP:

- design and development of various components of the information systems and information systems in their entirety;
- installation, configuration and administration of network infrastructure of the information systems;
- design and administration of databases of the information systems;

- supporting of information, program, technical and organizational legal provision of the information systems and their elements.

Formation of professional competence of students is provided thanks to the contents, volume and logic of creation of individual trajectory of the student.

Elective courses are developed for EP along with the block of obligatory subjects of theoretical curriculums. Subjects directed on formation of professional skills in the field of informatics and information technologies are provided in the curriculum as the courses at option.

The purpose of elective subjects of theoretical cycle is the idea of scientific bases of information technologies, their structure, essence, contents and possibility of implementation in society and reflection of the interests of employers.

Specifics of EP is reflected in the contents of the catalog of elective subjects, individual curriculum of the student, and work curriculum. The educational program provides a possibility of creation of individual educational trajectory considering the personal needs and capabilities of the students.

When creating the EP it is necessary to consider the opinion and needs of employers: “Republican Computer Centre” LLP, “National Center of Informatization” JSC, "Institute of Informatics and Management Problems at the MES RK".

The chair adjusted a system of monitoring of the student progress on educational trajectory. Advisers trace ratings of students which are discussed at faculty meetings. The developed system of monitoring of the educational environment of Academy is provided with the level approach to planning of different types of control, system approach to the organization of monitoring, various formative and summative forms of control at all administrative levels.

The policy of quality ensurance is reflected in the complex of internal documents of quality management system being developed for effective implementation and control of the main processes of activity of chairs: educational, methodical, research and pastoral work. The policy of quality is based on the strategic plan of the chair and Academy, is brought to the attention of all lecturers, employees and students of higher educational institution and is under constant control.

Diploma and course papers of students, contents of all types of professional practices are closely connected with the specifics of future professional activity of graduates. Research subjects of graduates have a practical focus and are based on experiment, where the obligatory requirement is approbation of materials of the diploma thesis in practice. Skilled and highly qualified lecturers of the chairs are appointed as the supervisors of final works.

The current control of progress is exercised in the educational process according to the requirements of credit technology of training: the 1st rating control – the 7th week, the 2nd rating control – the 14th week and examination control according to the schedule being prepared by the department for academic work.

Intermediate assessment of the students progress is performed during the period of rating control according to the academic calendar for the current academic year prepared by the department for academic work on the basis of curriculums.

Results of rating control are recorded in the rating sheet where the results of current progress in studies are also reflected. The grade point average of these two indicators outlines the results of midterm examination.

The final academic assessment is performed in the form of exam in the test or oral form. The decision on control form on this or that subject at the beginning of academic year is made at sub-faculty meeting.

One of the conditions of effective introduction of credit technology of training is application of innovative methods of training. AdobeConnect program is applied in the educational process. Video-conferences, video and audio-lectures are conducted using this program. The “Meeting” module is integrated into the process of training in order to make it more modern and more effective. Each student (listener) can be registered under his name and ask questions in chat or by voice. The following types of on-line classes are distinguished: lectures-dialogues, lectures-conversations, colloquiums, chat-seminars (classes conducted with

the use of chat-technologies and synchronously, where all participants have parallel access to the chat) and on-line reports of students on the basis of multimedia presentations. Experience of introduction of actual and effective techniques becomes the object of demonstration at indicative and open classes and is recorded in the journal of reciprocal visiting of classes of the lecturers and is reflected in the plans of educational and methodological work of the chair and minutes of the meetings of Academy Educational Methodological Council.

The faculty members of the chairs are using the following techniques in educational process: discussions; role-playing games; research projects (generalization of scientific knowledge, etc.); creative work (research work, etc.); multimedia presentations; case study on the basis of real situations; means of Web 2.0 (forums, blogs), different types of activity on the Internet "chat, forum, video, audio-conferences, etc.); reflection (on the basis of "student's portfolio").

The chairs support the scientific research communications with the higher educational institutions and scientific research centers of CIS and non-CIS countries: Belarusian National Technical University; Moscow Physical and Mathematical Institute (State University); Orenburg State Pedagogical University; Scientific and Technical University named after Stashitsa, Krakow (Poland); Lodzinsky University, Lodz, Poland; Management College of Southern Africa (MANCOSA), Durban, South African Republic, etc.

In the course of training, the students of EP attend different types of traineeships according to the State Compulsory Educational Standard: practical training (educational and computing), industry-focused practical training, and pre-graduation practical training.

The production organizations and enterprises as well as organizations corresponding to specialty subject matter (or related organizations) are the bases for such practical trainings: “RIVTs” LLP, “NtsI” JSC, “Institute of Informatics and Management Problems of MES RK”, “KaspiBank” JSC, “ATF Bank” JSC, “Alliance Bank” JSC, “CentreCreditBank” JSC, “KazTransGazAymak” JSC and others.

The chair signed 24 contracts in total with the relevant educational institutions and organizations in Almaty (15) and in the regional centers RK (9).

Upon completion of practice, the students hand over the reports as per approved form. Results of practical training, industry-focused practical training and pre-graduation practical training are considered and discussed at the final conference. Reports on all types of practical trainings are available at the chair.

Many enterprises of the city wrote the positive responses to the address of Academy following the results of industry-focused practical training and pre-graduation practical training (“Republican Information and Computing Center” LLP, “IT&T” LLP, “Metall con” LLP and others).

EEC notes that on 10 criteria of this standard, the higher educational institution has strong positions, on 21 criteria – satisfactory and 2 criteria assume the improvement.

The recommendations aimed at the development of educational programs:

- expand the cooperation with the leading foreign higher educational institutions on development of joint educational programs, performance of joint scientific researches, organization of scientific training of students and lecturers on educational programs;
- organize the work on implementation of joint educational programs with domestic and foreign higher educational institutions;
- introduce the "cards of competences formation" into the management of educational programs providing a specification of contribution of each subject and their logical sequence in achievement of educational results on formation of the professional competences, skills and blocks making the graduate's model.
- develop the format of competent model of graduate which is common for all implemented educational programs.
- introduce the concrete criteria, quantitative and qualitative measured indices into syllabuses allowing to raise the degree of objectivity of assessment of knowledge,

degree of formation of the students' professional competence according to the "card of competence".

3. Standard "Faculty members composition and teachning efficiency"

In 2011-2012 academic year, 28 lecturers of which all are the regular lecturers participated in implementation of EP "5B070300-Information systems". The general share of lecturers with academic degrees and ranks, including general education chairs, made 57%. Completeness – 100%.

In 2012-2013 academic year, 28 lecturers of which 26 are the regular lecturers participated in implementation of EP "5B070300-Information systems". The general share of lecturers with academic degrees and ranks, including general education chairs, made 65,3%. Completeness – 100%.

In 2013-2014 academic year, 22 lecturers of which 20 are the regular lecturers participated in implementation of EP "5B070300-Information systems". The general share of lecturers with academic degrees and ranks, including general education chairs, made 60%. Completeness – 100%.

According to the data of 2014-2015 academic year.

EP "5B070300-Information systems": 29 lecturers are involved, all lecturers are regular. Faculty members with academic degree – 17 people. Level of academic degree in the current academic year makes generally 58,6%.

According to the data of 2015-2016 academic year.

EP "5B070300-Information systems": 24 lecturers are involved, all lecturers are regular. Faculty members with academic degree – 14 people. Level of academic degree in the current academic year makes generally 58,3%.

The head of the chair has an academic degree of the Candidate of Pedagogical Sciences, academic status of the Associate Professor and sufficient scientific and pedagogical length of service in higher educational institution. 70% of lecturers of the chair "Information Systems and Data Processing Terminal Equipment" have scientific and pedagogical length of service of more than 10 years. 58,3 lecturers have the basic education in direction of "Information systems".

Personal information on faculty members in incomplete volume can be found on Academy's portal www.aesa.kz.

Each lecturer of the chair has a portfolio with all necessary data and supporting documents on qualification, professional development, list of the main works and list of the teachning subjects.

The chair analyzes information on its activity, performs assessment of strenghts and weaknesses. The reports (individual reports of faculty members, report of scientific and methodical seminar of the chairs, annual reports of the chairs) are regularly submitted following the results of activity.

Academic load of the lecturer includes teachning, educational and methodical, scientific research, organizational and methodical, pastoral work, as well as professional development, and activity in the professional environment. On average, the classroom load varies from 350 to 500 hours per year. The differentiated load depends on the category of faculty member - lecturer, senior lecturer, associate professor, professor. Each lecturer fills in the individual plan of work which is considered at sub-faculty meeting and approved by the head of the the chair. The report on implementation of the individual plan of lecturers is heard at sub-faculty meeting. The decision on completion (non-completion, partial completion) of the work plan by lecturer is made on a collegiate basis. Individual plans of lecturers, the report on activity of the chair are controlled by Educational Methodological Council of Academy.

Professional development is carried out according to schedule approved by the department for science and innovations of the Academy.

Thus, the percentage of lecturers obtained the professional development certificate is as follows: in 2011-2012 academic year - 30%; in 2012-2013 academic year - 60%; in 2013-2014 academic year - 85%; in 2014-2015 academic year – 82%. Including 17 certificates on the basis

of foreign higher educational institutions (Moscow - 4, Turkey-Dalaman - 1, St. Petersburg - 1, Poland-Krakow - 1, Belarus-Minsk - 4, Germany-Berlin - 2, Cyprus-Gerne - 4).

In 2013-2014 academic year, the faculty members attended the seminars, trainings, courses, master classes and obtained 38 certificates:

- "Innovative technologies in education in interaction and coordination of work of institutions of the general and additional education, technical and professional education and higher education", Astana, Center of Training and Development (G.Madyarova, R.Segizbayeva, K.Baysalbayeva, E.Turegeldiyeva, A.Tulemisova, B.Buribayev, L.Mergenbay from October 7 to October 19, 2013 in a volume of 72 hours);
- Technique of teaching technical subjects in the conditions of industrial and innovative development, Almaty, Sun Ray Training;
- Modern web-technologies, Almaty, Sun Ray Training;
- Training of students of technical specialties in programming, Almaty, Sun Ray Training.

Lecturers of the chairs conduct research activity.

In 2013-2014 academic year, G.Madyarova, the Professor of the chair was the collaborator of the state budgetary project on subject "Development of Intellectual System of 3-dimensional Computer Vision for Robotic Systems" under the supervision of Ye.Amirgaliyev performed at the Institute of Informatics and Management Problems at MES RK. (The employment contract No. 246/13, for the sum of 1 mln. 40 ths. KZT).

Since 2014, the economic and contractual research work on subject "Research of Opportunities for Development of Inclusive Education with Application of Information Technologies" is carried out under the supervision of D.Mukhambetov, the Professor of the chair (Contract No. NA-14-AAES-02 dated 06.01.2014. Amount of financing is 2 700 000 (two million seven hundred thousand KZT).

In 2012-2013 academic year, K.Baysalbayeva, the Associate Professor, defended the Ph.D. thesis on subject "Technique of Training of Students of Higher Educational Institution in Computer Graphics in the conditions of Credit Technology", 13.00.02 – theory and technique of training and education (informatics). And in 2014, she received confirmation of academic degree of the candidate of pedagogical sciences of Kyrgyzstan.

Lecturers of the chair – G.Madyarova, B.Buribayev, R.Segizbayeva, K.Baysalbayeva, Sh.Mamayev became the owners of the grant of the President of Kazakhstan "Bolashak", 2013. G.Madyarova, B.Buribayev, R.Segizbayeva, K.Baysalbayeva during the period from January 28 to February 28, 2013 attended the scientific traineeship in Belarus National Technical Academy according to the Bolashak program.

Professor E.Alshynbayeva within the last 7 years is the adviser of the German journal of “Zentralblatt fur Mathematic” scientific information center.

In 2013-2014 academic year, the innovative patents and certificates on the state registration of rights for object of copyright were obtained:

- D.Mukhambetov: “Method of processing of hydrocarbonic fuel and device for its Implementation”. Innovative patent RK 2013/1110.3;

- D.Mukhambetov: “Method of automatic inclusion of reserve power supply and device for its implementation”. Copyright certificate No. 81674, 2013/0503.1,16.04. 2013

- G.Madyarova, L.Markova, K.Baysalbayeva: “Laboratory practical work on DBMS MS Access (manual).//Almaty. AAES.-2010, 132 p.// Certificate on the state registration of the rights for object of copyright No. 481 dated April 25, 2013.

- K.Baysalbayeva: “Computer graphics (manual)//Almaty. AAES.-2010-140p.//Certificate on the state registration of the rights for object of copyright No. 466 dated April 25, 2013.

- K.Baysalbayeva: “Computer graphics (manual) in the Kazakh language//Almaty, Almaty Academy of Economics and Statistics, 2011, 129 p.// Certificate on the state registration of the rights for object of copyright No. 465 dated April 25, 2013.

Educational and methodical complexes in specialty of the “Informatics” chair are created for 100%.

Educational and professional programs in specialty are implemented on the basis of educational and methodical complexes of subjects.

In 2014-2015 academic year:

- 10 training manuals are published with a total volume of 147 p.s., 2 educational and methodical manuals with a volume of 9 p.s., and 13 articles of educational and methodical character with a volume of 4,3 p.s. are published in materials of educational and methodical conferences;

- Monograph "Application of remote educational technologies for training of individuals with disabilities" is published (D.Akhmetova, T.Chelnokova, G.Migranova, V.Korvyakov, D.Mukhambetov) - Almaty: AAES, 2014.-172 p.;

The faculty members of the chairs are the members of various professional associations:

- Professors: G.Madyarova, B. Buribayev B. within the last 5 years are the associate editors of Republican periodic scientific and methodical journal "Basis of Informatics" (once per 2 months);

- G.Madyarova, the head of "Informatics" chair is elected as the full member of the International Academy of Informatization (28.03.2012), and academician of MAIN;

- K.Baysalbayeva is awarded with academic status "Professor of the Russian Academy of Natural Sciences", Moscow, No. 7070 dated February 25, 2014;

- N.Ivanitskaya completed accreditation as the subject of scientific and/or scientific and technical activity (Certificate of accreditation No.002105 MK dated October 13, 2011);

- Training manual "Computer graphics", K.Baysalbayeva, owner of the diploma Winner of the All-Russian Exhibition "The Best Educational and Methodical Edition in Branch", Gold Fund of Domestic Science of the Russian academy of Natural Sciences", Moscow, 2014;

- In 2012, B.Buribayev, Professor is awarded with a medal of A. Baytursynov "Prize Winner" for active work in writing of textbooks for the higher educational institutions in Kazakh language.

Since 2014, the economic and contractual research work on subject "Research of Opportunities for Development of Inclusive Education with Application of Information Technologies" is carried out under the supervision of D.Mukhambetov, the Professor of the chair (Contract No. NA-14-AAES-02 dated 06.01.2014. Amount of financing is 2 700 000 (two million seven hundred thousand KZT).

The faculty members of "Informatics" chair were actively published in domestic and international journals with non-zero impact-factor. Thus, in 2013-2014 academic year, 11 articles with impact-factor were published, including 2 scientific articles in the international scientific publications entering the information database of ISI Web of Knowledge, Thomson Reuters and Scopus in co-authorship of G.Madyarova and K.Baysalbayeva.

EEC notes that on 4 criteria of this standard, the higher educational institution has strong position, on 16 criteria - satisfactory, and 1 position assumes the improvement: development of the academic mobility.

For the purpose of faculty members development, the commission recommends:

- increase the involvement of faculty members in scientific research and design activity;
- invite the leading domestic and foreign scientists for conducting the classes;
- develop the program of professional development of faculty members in the field of actual applied researches and in the sphere of innovative methods and forms of education according to the purposes of educational programs;
- develop and realize a set of measures on publication of scientific articles in the journals indexed in the international databases including, in a DB Web of Science of Thomson Reuters and Scopus of publishing corporation Elsevier.

4. Standard "Students"

The general enrollment of students in EP includes the students who are trained on a paid basis (intramural and extra-mural modes of study).

Dynamics of enrollment movement in terms of specialties is as follows:

The enrollment of students in EP “5B070300-Information systems" made:

- in 2011-2012 academic year – 460 students, including in state language – 165 people, among them on grant – 0 students, on contractual basis – 460 students;
- in 2012-2013 academic year – 381 students, including in state language – 63 people, among them on grant – 0 students, on contractual basis – 381 students;
- in 2013-2014 academic year – 534 students, including in state language – 153 people, among them on grant – 0 students, on contractual basis – 534 students.
- in 2014-2015 academic year, the enrollment of students in specialty "5B070300-Information systems" (as of October 20, 2014) – in total 349 students, among them in intramural - 142, in state language - 78, on grant - 0 students. Extramural - 207 students, on contractual basis – 349 students.
- for 2015-2016 academic year, the enrollment of students in specialty "5B070300-Information systems" (as of November 2, 2015) – in total 195 students, among them in intramural - 174, in state language - 75, on grant - 0 students. Extramural - 4 students, in on-line educational technology – 17, on contractual basis – 195 students.

Opportunities for comfortable training are provided for the students by taking into account the modern requirements for organization of educational process.

In AAES functions the official site (www.aesa.kz) wherein the students and graduate from a secondary school learn about the procedure for the enrollment formation (admission rules; rules for transfer from course to course, from other higher educational institutions; procedure of transfer credits mastered in other higher educational institutions, expels, etc.) as well as the student’s reference guide book, meetings with the head of chair, advisers-curators.

Students of EP take active part in various competitions and actively participate in cultural, scientific and other actions of Academy and chair which promote their personal, social and professional growth. Participation of students in the specified actions is noted by diplomas of winners: M.Asylbek, the student of the 3rd course is awarded for active participation in the XI International Scientific and Practical Conference "Industrial and Innovative Development and Integration in Economy and Education"/AAES, the Russian State Professional and Pedagogical University, Saint-Petersburg State University of Economics and Finance, Almaty 2012. I.Sulzhik, the student of the 4th course is awarded with the the diploma of the 1st degree at the XI International Scientific and Practical Conference "Industrial and Innovative Development and Integration in Economy and Education"/AAES, the Russian State Professional and Pedagogical University, Saint-Petersburg State University of Economics and Finance, Almaty 2012. M.Asylbek Matkarim who took the 3rd place is awarded with the diploma in competition for individual event of the training center in raising of the weight of 24 kg, 2012.

Final attestation of the students is carried out in terms provided by the academic calendar and in the forms specified by the Academic Council of Academy.

In 2013-2014 academic year, the excellent students in specialty "Information Systems" – A.Duzelbayeva, the 3rd course student, and L.Sabyrbayeva, the 4th course student have won the presidential educational grant.

The management of AAES makes the financial support to the students-orphans, students from large families, and students from one family by providing them with privileges and single help. The management of higher educational institution provides discounts in payment for training of 5, 10, 25 and 50% to the students from low-income families and orphans according to their statement.

The chair develops annual plan of students' scientific research wherein it is stated that its basis is the the mission, purposes and objectives of the chair directed on "training of specialists with creative thinking, capable to practical realization of gained knowledge in science, production and business activity".

Students are involved in the performance of R&D. They participate in work on the initiative project and make reports at scientific-theoretical conferences (Students: V.Vinogradov, V.Vdovina, D.Kozhanov, A.Komorovsky, D.Kirilova, L.Sabyrbayeva, A.Matkerim and Master’s

degree students: D.Demeubayeva, M.Suleymenova). Electronic resources of the chair were developed with participation of these students and Master's degree students.

The scientific circle "Young Programmer" is existing within the chair under the supervision of B.Buribayev, Professor (Members of circle: A.Abu, G.Almakhanova, G.Dzhiyenbayeva, A.Eginzhanov, A.Erzhigit, N.Zhaksybay, A.Imanbek, A.Izteleuov, N.Kartbayev, A.Matkerim, A.Mynbayeva, D.Myrzaliyev, B.Narmakhan, E.Nurseitov, Zh.Omar, B.Shokan, Ye.Shukirali).

The chair pays a special attention to the training of masters in specialty "6M060200 - Informatics".

According to the Contract No.48 dated August 25, 2014 – U.Suleymenova and R.Eltinova, the Master's degree students in specialty "6M060200-Informatics" work on economic-contractual subject "Applied Scientific Research", the "Priorities of Social and Economic Development of Almaty" in the section "Identification of Major Factors of Decrease and Growth of Economic Indicators of Almaty and Reserves of its Social and Economic Development", under the supervision of N.Mukhambetov, Doctor of Physics and Mathematics, by request of "Dpt. for Almaty Economy and Budget Planning".

The Academy and chair organized scientific traineship for Master's degree students and employees to the city of Krakow (Poland) in Mining and Metallurgical University named after Stashits. A.Aksholakov and Z.Zhanuzakova, the Master's degree students of "Informatics" chair completed the scientific traineeship in Krakow from July 16 to July 22, 2012.

In 2011-2012 academic year, 13 students made reports at the Republican Scientific Student's Conference held annually in AAES; in 2012-2013 academic year - 21 students, and in 2013-2014 – 35 students and Master's degree students.

The total amount of the students' published articles (conferences, mass media, etc.), including EP "5B070300-Information systems": in 2011-2012 academic year – 15; in 2012-2013 academic year – 7; in 2013-2014 academic year – 8.

A.Sapekenov, the 3rd course student in specialty "Information Systems", was trained at Eurasian Open University (within 1 semester) on the academic mobility from 9.02.2013 to 5.07.2013.

Within the chair's academic mobility, from 2013-2014 academic year, Zh.Makulova, the master's student in specialty "06M060200-Informatics" is engaged in the master's thesis on subject "Application of Remote Educational Technologies for Training of People with Reduced Capabilities" under the joint supervision of D.Akhmetova, Prorector for Continuous Education, Director of Institute of Distance Learning, Head of Theoretical and Inclusive Pedagogics Chair, Kazan, Russian Federation and D.Mukhambetov, Doctor of Physics and Mathematics.

When making selection of EP within the international academic mobility, the main criteria are: the status of Academy in the international market of educational services, and quality of educational services provision.

In the long term, the chair plans to expand the range of foreign trips of not only theoretical, but also practical orientation, and provide more opportunities for EP selection by students.

The student has opportunity to review the schedule of studies and examinations, follow the educational achievements (progress for the current semester, and previous academic periods), can undergo testing on subjects for self-assessment of knowledge. The training and methodical materials on specialty are placed in "personal account" of the student. Students have access to such information as classes schedule, and duration of the forthcoming classes by using portal "Prometheus" - System of Distance Learning (SDL).

The structure promoting and coordinating the academic mobility of students and lecturers is established in Acedamy – the Department for academic work. The chair closely cooperates with higher educational institutions of CIS and non-CIS countries – Russia, Belarus, Poland, etc.

Students have opportunity for realization of leader and creative potential. Committee for Matters Concerning Young Persons, leisure and sports associations are available for students. The number of students who actively participate in collegial bodies is considerably increasing.

Employment of graduates is traced by the chair. According to the data of "Informatics"

chair, the employment of graduates in EP “5B070300-Information systems" in 2012: - (no graduates); in 2013: 81,6%; in 2014: 88%.

At the same time, the commission notes insufficient level of development of external and internal academic mobility of students and their involvement in scientific research activity and implementation of the financed projects.

EEC notes that on 4 criteria of this standard, the higher educational institution has strong positions, on 9 criteria - satisfactory, and 2 positions assum the improvement. Improvements assume the provision of possibility for external and internal mobility of students.

The commission recommends the following for development of the students' potential:

- intensify the participation of students in scientific research activity and financed scientific projects of faculty members in specialty;
- expand the geography of higher educational institutions for ensuring the academic mobility of students;
- activate the work on development of external and internal academic mobility of students;
- create opportunities for professional certification of students in IT sphere.

5. Standard “Resources available for educational programs”

Material and technical support of educational process for implementation of EP “5B070300-Information systems", is presented in the following infrastructure: multimedia, lecture halls, computer classes and virtual laboratories. The multimedia computer class includes the following equipment: 26 computers (HP monoblocks on the basis of processor Intel (R) Pentium DualCore CPU 2,50, GHz, 2 Gb RAM, HDD 250 Gb, Samsung LS19MYNKSB, interactive projector (Epson EMPS1H), 26 earphones with built-in microphone.

Computer programs are installed in the computer classes which are used for giving classes in the basic and major subjects: on programming "Java", "Microsoft Visual Studio", "C ++ Builder", "Delphi", "Turbo Pascal", "Turbo C"; on computer graphics: "Corel Draw", "Photoshop", "3D Max", "AutoCAD"; for giving classes in subject "Analysis of data and forecasting of economy", Statistics package, etc.

Academy has the library, 1 hall of electronic resource and 1 reading room in the educational. Reading rooms are technically equipped, and have sufficient number of seats. All conditions required for work of students and faculty members are created in the reading room. The book stock in subjects taught by the “Informatics” chair is as follows:

EP “5B070300-Information systems": 2011-2012 academic year–16280 units of literature, or 75 pcs. per 1 student; 2012-2013 academic year–18146 units of literature, or 92 pcs. per 1 student; 2013-2014 academic year - 27720 units of literature, or 143 pcs. per 1 student;

The Academy edits and issues the scientific journal "Statistics and Accounting", and electronic versions of journal are available on www.aesa.kz. portal.

Academy provides technological support for students and faculty memberst, and gives a possibility for trial self-assessment of the knowledge of students through access to the Academy portal; there is also a possibility of the academic consultations. The electronic resources placed in “Prometheus” and electronic library (\174.16.3.4\lib\1\Elektronnaya biblioteka) help the students to plan and carry out the educational programs.

The faculty members of the graduate chairs have a possibility for supporting students with information and reference and methodical materials of educational program on www.aesa.kz. Portal.

The students of intramural and extra-mural departments are trained in the off-line and on-line mode of study. Consultations with the use of ICT are held by lecturers and staff of the training centers by means of forums and chats of the Web-portal "Prometheus", "Adobe Connect", and additional software of communication (for example, "Skype", "Mail.ru the

Agent"). The use of PC and innovative software is available for teaching subjects of professional cycle (classrooms 200, 211, 214, 216, 413, 506, 510).

Tasks and reviews of control and attestation works of students of extra-mural department are uploaded by lecturers to the web-site www.study.aesa.kz.

For students of on-line learning, all types of control are carried out virtually. The marks for the current and midterm examination are reflected on "Prometheus" portal in the point "Reports".

The mark is put down in the scholastic record on the basis of results of the current and midterm examination. The final control of progress of students is carried out in writing and through the computer testing. Results of attestation and final control are available on the information and education "Prometheus" portal.

Information on all students of the Academy and results of their educational activity are uploaded in a uniform database "1C-dean's office", placed on the server of Academy.

The management of Academy promotes the improvement of competences of faculty members of the chairs in the field of informatics and information technologies of training. The faculty members participate in the seminars and scientific and practical conferences devoted to the questions of introduction of innovative information technologies in educational process. Monitoring of development and use of IT-technologies of training by the faculty members and existence of certificates is carried out.

The chair provides the information characterizing the implemented EP, efficiency of its use for improvement of EP on a web resource. Personal pages for faculty members (personal account) are available on a portal of Academy.

At the same time it is possible to note insufficient quantity of the modern courseware in foreign languages on educational programs; insufficient number of electronic and multimedia programs for languages studying.

EEC notes that on 6 criteria of this standard, the higher educational institution has strong positions, on 26 criteria - satisfactory, and 1 position assumes the improvement: availability of laboratories development programs.

Recommendations:

- increase the quantity of modern courseware in foreign languages and foreign authors on educational programs,
- expand the range of the electronic and multimedia programs for studying of programming languages applied in the educational process;
- consider the possibility of creation of laboratories with attraction of the employers resources;
- analyse the possibilities of realization of blended learning;
- use the mass open on-line courses.

6. Standards in terms of separate specialties

The content of EP envisages the creation and operation of the information systems automating the tasks of organizational management of business companies and budgetary establishments; analysis of requirements for information systems and business applications; set of methods and development tools of information systems and business applications; implementation of design specifications and architecture of business application; regulations of modifications, optimization and development of information systems.

Educational, production, predegree practices of work curriculums of specialties are urged to give the students an idea and impart the skills of scientific organization of professional activity, strengthen the interest in information technologies, form and expand a complex of professional skills in the field of informatics and information technologies.

The content of professional activity of EP "Information systems" is aimed at design and development of various components of the information systems and information systems in their entirety; installation, configuration and administration of the network infrastructure of

information systems; design and administration of databases of the information systems; provision of the information, program, technical and organizational legal support for the information systems and their elements.

The content of professional activity of EP “Informatics” is aimed at creation and operation of the information systems automating the tasks of organizational management of business companies and budgetary establishments, analysis of requirements for information systems and business applications, implementation of design specifications and architecture of business applications.

Specifics of EP requires the accent attention of the organizers of learning activity to the mastering of the modern innovative technologies in various branches of informatics and information systems by the students.

EEC notes that on 6 criteria, the EP has satisfactory positions.

EEC recommends:

- activate the involvement of employers in the educational process;
- start the activity of scientific, scientific and tutorial workshop on the use of IT in the educational process.

RECOMMENDATIONS TO HIGHER EDUCATIONAL INSTITUTION:

The Commission’s recommendations for improvement of the educational programs management are as follows:

- revise the forms of EP development plan for the purpose of specification of activity directions, forecasting of perspective dynamics for formation of the students enrollment;
- specify and formalize the mechanism of EP risks identification and management;
- further development of cooperation with the domestic and foreign higher educational institutions implementing similar educational programs.

The Commission’s recommendations for sustainable development of educational programs are as follows:

- develop the cooperation with the leading foreign higher educational institutions on development of joint educational programs, performance of joint scientific researches, organization of research traineeships of students and lecturers on educational programs;
- organize the work on implementation of joint educational programs with domestic and foreign higher educational institutions;
- introduce the "cards of competences formation" into management of educational programs which provide a specification of a contribution of each subject and their logical sequence in the achievement of educational results on formation of the professional competences, skills and blocks making the model of the graduate;
- develop the format of competence model of the graduate which is uniform for all implemented educational programs;
- introduce the concrete criteria, quantitative and qualitative measured indices into syllabuses which allow to raise the degree of objectivity of the knowledge assessment, degree of students professional competence formation in accordance with the "the card of competence".

The Commission’s recommendations for development of faculty members are as follows:

- increase the faculty members involvement into scientific research and design activity;
- invite the leading domestic and foreign scientists for conducting classes;
- develop the program of professional development of faculty members in the field of actual applied researches and in the sphere of application of the innovative methods and study forms according to the purposes of educational programs;
- develop and realize the package of measures on publication of scientific articles in the journals indexed in the international databases including DB Web of Science of Thomson Reuters and Scopus of Elsevier publishing corporation.

The Commission's recommendations for development of students' potential are as follows:

- intensify the participation of students in scientific research activity, including the financed scientific projects of the faculty members in specialty;
- expand the geography of higher educational institutions for ensuring the academic mobility of students;
- activate the work on development of external and internal academic mobility of the students;
- create the opportunities for professional certification of students in IT sphere.

The Commission's recommendations for resources strengthening are as follows:

- increase the quantity of modern courseware in foreign languages and foreign authors on educational programs,
- expand the range of the electronic and multimedia programs for studying of programming languages applied in the educational process;
- consider the possibility of creation of laboratories with attraction of the employers' resources;
- analyse the possibilities of realization of blended learning;
- use the mass open on-line courses in the educational process.

The commission's recommendations for strengthening of EP specifics are as follows:

- intensify the involvement of employers in educational process;
- start the activity of a scientific, scientific and methodical seminar on the use of IT in educational process.