



**INDEPENDENT AGENCY  
FOR QUALITY ASSURANCE IN EDUCATION (IQAA)**

**EXTERNAL REVIEW REPORT  
BAKU STATE UNIVERSITY**

**PROGRAM ACCREDITATION  
060504 Analytical Chemistry**

**Nur-Sultan – 2021**

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**THE LEVEL OF COMPLIANCE OF THE SELF-ASSESSMENT  
REPORT WITH THE ACTUAL STATE OF THE EDUCATIONAL  
PROGRAM: 060504 ANALYTICAL CHEMISTRY**

Standards	Indicate the level of compliance of the self-assessment report with the actual state of affairs at the higher education institution for each standard			
	Full compliance	Significant compliance	Partial compliance	Non-compliance
<b>STANDARD 1.</b> POLICY IN THE AREA OF QUALITY ASSURANCE OF THE EDUCATIONAL PROGRAM AND ACADEMIC INTEGRITY	+			
<b>STANDARD 2.</b> DEVELOPMENT AND APPROVAL OF THE EDUCATIONAL PROGRAM, INFORMATION MANAGEMENT	+			
<b>STANDARD 3.</b> STUDENT-CENTERED LEARNING, TEACHING AND ASSESSMENT	+			
<b>STANDARD 4.</b> STUDENT ADMISSION, LEARNING OUTCOMES, RECOGNITION AND QUALIFICATIONS	+			
<b>STANDARD 5.</b> TEACHING STAFF	+			
<b>STANDARD 6.</b> LEARNING RESOURCES AND STUDENT SUPPORT		+		
<b>STANDARD 7.</b> PUBLIC INFORMATION	+			

## ***CONTENT***

<b>Chapter 1. CONTEXT AND PURPOSE OF THE AUDIT</b>	<b>5</b>
Introduction	5
Main characteristics of the higher education institution	6
<b>Chapter 2. REPORT ON THE EXTERNAL REVIEW BY THE EXPERT GROUP</b>	<b>7</b>
Compliance with the programme accreditation standards	7
<i>Introduction</i>	
<i>Standard 1</i>	8
Policy in the area of quality assurance of the educational program and academic integrity	
<i>Standard 2</i>	9
Development and approval of the educational program, information management	
<i>Standard 3</i>	11
Student-centered learning, teaching and assessment	
<i>Standard 4</i>	12
Student admission, learning outcomes, recognition and qualifications	
<i>Standard 5</i>	14
Teaching staff	
<i>Standard 6</i>	16
Learning resources and student support	
<i>Standard 7</i>	18
Public information	
<b>Chapter 3. CONCLUSION</b>	<b>20</b>
<b>Annexes</b>	<b>22</b>
<i>Annex 1</i>	
Program of the external review	
<i>Annex 2</i>	24
List of interview participants	
<i>Annex 3</i>	27
List of additional documents	

**CHAPTER 1**

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**CONTEXT AND PURPOSE OF THE AUDIT*****Introduction***

The external visit of the expert group in the frames of program accreditation procedure for educational programs of Baku State University took place from March 15 to 16, 2021.

The external audit was conducted in accordance with the program developed by IQAA and agreed with the university management. All the necessary materials (the program of the visit, reports on the self-assessment of educational programs, Standards and criteria of program accreditation, Guidelines for organizing and conducting an external visit (audit) for the procedures of institutional and program accreditation, the template of the external audit report for program accreditation) were presented to the members of the expert group a month prior to the site visit, what let the expert group prepare to the external review procedure in a timely manner.

The meeting with the management of the university allowed the team of experts to officially get acquainted with the general characteristics and achievements of the university in recent years. The planned activities for the external visit contributed to a more detailed acquaintance with the material and technical, educational, laboratory and research base, with the teaching staff of the departments in the areas of accredited educational programs, undergraduates, graduates and employers allowed external experts to independently assess the compliance of the data presented in the self-assessment report of educational programs with the actual state of affairs of the university.

The experts examined the departments in the areas of accredited educational programs, the research laboratories in the areas of accredited programs, as well as other facilities of the universities related to accredited educational programs.

The self-assessment report of the educational program contains a large amount of information, where all areas of activity of structural divisions are analyzed in accordance with the IQAA's Standards of program accreditation, strengths and weaknesses are identified, threats and opportunities for further development are identified.

In the course of the external audit, the experts, in order to get a more detailed examined the document flow, educational and methodological, and material support, studied the documentation of the departments, including video materials, online courses on the cycles of disciplines, and elective disciplines, selective attendance of training sessions (online) in the areas of accredited educational programs.

In advance of the audit, the university prepared and presented to the experts a promotional video on the university and the accredited educational programs.

### ***Main characteristics of the higher education institution***

Baku State University was founded in 1919. It operates based on the Charter, has state accreditation of July 7, 2017, No. 010 for the right to conduct educational activities in the field of higher and postgraduate education in 66 bachelor's specialties, 235 Master's specialties, 114 doctoral specialties.

The educational process is organized following the normative documents of the Ministry of Education and the Cabinet of Ministers of Azerbaijan.

Baku State University represents itself in the market of educational services as the leading classical university in Azerbaijan which aims to continue the dynamic development of internationalization, acquire the status of an international university, as well as an advanced research center.

One of the main tasks of the internationalization of the university research work is the search for new international programs, the participation of the university in the preparation and submission of individual and joint applications with foreign partners for research grants. To this end, the university, within the framework of the Erasmus KA01, Erasmus KA02, Mevlana, Tempus-Tasis, DAAD program, is working on the implementation of the project «Exchange between Turkish universities and other universities in the world, teachers (professors) - students (undergraduates, doctoral students)».

The university attracts foreign prominent scientists from world universities to read lectures according to the program for attracting foreign scientists.

The material and technical base of the university consists of 4 educational and laboratory buildings with modern classrooms, computer classes; libraries with electronic reading rooms and free Internet access; an educational television studio; a sports complex with gyms and games rooms, a swimming pool, outdoor sports grounds, and spacious food outlets; hostels for students; medical clinic.

On the base of the university, there are two research institutes and a lyceum of "Young talents" in the city of Baku, educational and practical centers in the city of Guba, and the village of Altiagach.

The university has a corporate computer network designed to unite educational buildings into a single information space and provide access to information resources of the university and the Internet, a wireless Wi-Fi network function.

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## CHAPTER 2

### REPORT ON THE EXTERNAL REVIEW BY THE EXPERT GROUP

#### *Compliance with the program accreditation standards*

##### *Introduction*

The Department of Analytical Chemistry has been training specialists for various sectors of the national economy since 1935.

Currently, training is carried out in the following specialties: 050508 "Chemistry", 050109 "Teacher of Chemistry", 050618 "Chemical Engineering" (bachelor's degree); 060504 "Analytical chemistry", 060504 "Chemical expertise" (master's degree); 2301.01 "Analytical Chemistry" (doctoral studies and dissertations in the PhD); 2301.01 "Analytical Chemistry" (doctoral studies and dissertation for Doctor of Chemical Sciences).

The basis for the successful and competitive development of the department is determined by qualified teaching staff. Currently, the department employs 2 doctors professors, 8 candidates (5 associate professors), 5 PhDs, 16 masters. Teaching staff use innovative methods extensively.

The teachers of the department take an active part in the organization and implementation of large-scale regional and university events, awareness campaigns, scientific and expert discussions on topical issues of public policy and public life of the country.

Teachers of the Department of Analytical Chemistry are actively involved in the organization and implementation of international, regional and university events, awareness campaigns, scientific and expert discussions on topical issues of public policy and public life of the country.

The scientific activity of the department is related to the study of organic reagents and chelated sorbents for the analysis of organic and inorganic substances by physical and chemical methods.

The scientific and intellectual potential of the department gives an opportunity to work in close cooperation with organizations and enterprises such as SOCAR Azerbaijan State University of Oil and Industry, the Institute of Catalysis and Inorganic Chemistry, the Institute of Radiation Problems and the Institute of Petrochemical Processes of ANAS in order to implement the state program industrially - innovative development.

The Department of Analytical Chemistry has an educational and scientific laboratory base, which provides the formation of the required skills and abilities of undergraduates.

## **Standard 1. Policy in the area of quality assurance of the educational program and academic integrity**

### ***Analysis and evidence:***

BSU prepares undergraduates for Educational Program (EP) for the specialties "Analytical Chemistry": 060504. State license No. 010 issued by the Ministry of Education of the Republic of Azerbaijan on 07.07.2017 and is valid for 5 years.

The Department of "Analytical Chemistry" adheres to the policy of quality assurance in the provision of services within the educational program 060504 - "Analytical Chemistry". The policy with official status is available to all participants in the educational process, as well as to external stakeholders.

The main goal of the policy is to ensure the quality of educational activities and scientific research by meeting consumer requirements. Quality assurance policy plays a key role, and this relationship is strengthened in connection with the continuous improvement of EP at all levels of education (bachelor's, master's, doctoral).

The university's educational programs respond to requests from potential employers. The University has signed agreements on cooperation with enterprises of the Republic of Azerbaijan.

The EP responds to requests from potential employers, surveys are conducted with potential employers. During the external audit, representatives of employers were involved in the interview, in particular from organizations such as the Institute of Catalysis and Inorganic Chemistry of ANAS, Institute of Petrochemical Problems of ANAS, Institute of Additive Chemistry of ANAS, Institute of Polymer Materials of ANAS, SOCAR, Institute of Food Safety, etc. According to the results of the interview, it appeared that employers are generally satisfied with the level of education of EP professionals.

To expand international relations, direct ties have been formed with many foreign scientific centers. The university has signed agreements on cooperation in the field of education and science with 182 foreign universities, including the designated educational program.

Within the framework of international cooperation, regular work is carried out to ensure the external mobility of students and teaching staff. During the external audit, facts about cooperation were revealed, for example, as co-management of scientific work with universities in other countries.

The peculiarity of this program is to increase the volume of professional practice credits for graduate students.

The educational activity of the university is carried out based on the charter: (<https://cabmin.gov.az/media/files/2933778ef7b207dce473d09f5bdefb73.pdf>).

During the external audit, several master's theses were studied. In particular, the dissertations of A.B.Gadzhiev, Z.A. Mamedova, N.T. Rahimli, A.U. Gasimova, A.J. Rahimova and S.E. Mamedova were considered. It was revealed that the work is aimed at solving modern urgent problems.

The educational program is aimed at training specialists with individual thinking and scientific interests. For this, elective disciplines are included in the



educational program, which gives students the opportunity to choose disciplines. Starting from the first year of study, the student is involved in scientific activities, on the basis of which they timely choose the topics of the final work. These facts indicate the academic value of the EP.

Through the dean's office, the Council of Young Scientists and the Student Youth Organization Department, undergraduates are involved in the management of the EP.

Academic integrity is considered in the light of corruption. The university introduced an automated information system "Appeal to the rector" (<https://www.emailmeform.com/builder/form/dP9t15Z2EKFu5j>). The University uses the licensed program "AntiPlagiati", "Advego Plagiats", "Plagiarism Checkers", "Reaxys" to check the written works of undergraduates and teaching staff and identify facts of academic fraud.

### **The level of compliance - full compliance.**

#### **Standard 2. Development and approval of the educational program, information management**

##### ***Analysis and evidence:***

In accordance with the internal rules, the process of administration, implementation and evaluation of their effectiveness has been developed and approved educational programs. These procedures are described in the document "Rules for the preparation of an educational program in a specialty" <http://md.bsu.edu.az/az/rub/1/magistratura/esasname>. Educational programs for each level of education are developed in accordance with the national system of qualifications, have clearly formulated goals that are consistent with the mission of the university ([http://bsu.edu.az/ru/content/missia\\_i\\_strategia\\_bakinskoqo\\_qosudarstvennoqo\\_uni\\_versiteta](http://bsu.edu.az/ru/content/missia_i_strategia_bakinskoqo_qosudarstvennoqo_uni_versiteta)).

In accordance with the criteria of standard two, the analysis of reported data allows expert group to draw the following conclusions.

The university has formed internal rules for the development and approval of educational programs. The EP is developed by teachers, discussed at the meetings of the department with the participation of employers of the leading enterprises of the region based on the academic calendar, considered at the meetings of the Educational and Methodological Bureau, the Educational Methodical Council and approved by the decision of the Academic Council.

The content of the EP is aimed at expected results and reflects student-centered learning.

The educational program considers the requirements - the desires of undergraduates and the demand of the labor market. Taking into account the proposals of employers, the following disciplines were introduced: Analysis of

specific objects, Chromatographic methods of analysis, Application of complex compounds in analytical chemistry. Undergraduates are also involved in the process of forming the educational program.

Elective disciplines of an additional type of education take into account the specifics of the socio-economic development of a particular region and the needs of the labor market, established scientific schools at the university, as well as the individual interests of the master's student.

The total labor intensity of the educational program of the scientific and pedagogical direction is 120 credits (<http://chemistry.bsu.edu.az/ru/rub/kafedri/analiticheskaya-ximiya>).

In accordance with the state educational standard of postgraduate education and the main curriculum of the EP, it is envisaged for undergraduates to undergo research and scientific-pedagogical practice. The scientific-pedagogical and research practice of the EP for the preparation of a master is implemented in accordance with the regulation on the organization and conduct of professional practice <https://edu.gov.az/ru/page/112/2547>.

Periodically working curricula for specialties are updated by 15-30%, taking into account the wishes of students and employers.

The University has developed an Academic Policy, which regulates the provision on the transfer of credits according to the ECTS type.

When developing the EP, the degree of labor intensity of the academic load of undergraduates in all types of educational activities provided for in the curriculum is taken into account.

The estimated labor intensity of the academic load of undergraduates is reflected in credits. One academic hour is equal to 45 minutes of lectures or practical (seminar) classes. The ratio of credits/hours is as follows: 1 credit is equal to 30 academic hours, including, depending on the subject, 12-15 contact hours and the remaining hours of independent work.

Internal quality assessment and EP expertise are carried out by monitoring the processes taking place at the university:

- assessment of the activities of the department and teaching staff
- assessment of educational achievements of students
- internal audit
- collection and processing of suggestions, comments and recommendations of employers, reviewers of diploma theses, heads of professional practices, etc.

To control and assess the quality of EP, representatives of the educational and methodological council of the faculty and the university regularly attend classes, and there is an independent control of the head of the department. The results of these activities are discussed at meetings of the educational and methodological council of the faculty and are reflected in the minutes of the educational and methodological council of the faculty, as well as the university and the department.

The qualifications obtained because of mastering the EP makes it possible to work in places where these specialists are in demand. The positive aspects of mastering the

accredited EP are that the list and content of the modules are developed by the teachers themselves in accordance with the set goals and are concretized by an integrated approach to the formation of educational programs.

***Areas of improvement:***

- As the development of the accredited system, it is necessary to emphasize the development of the list and content of modules by teachers, which takes into account the set goals and is concretized by an integrated approach to the formation of educational programs.
- It is recommended to closely address the issues of the career ladder of graduates.

**The level of compliance - full compliance.**

**Standard 3. Student-centered learning, teaching and assessment**

***Analysis and evidence:***

Master students are the main consumers of EP. The educational environment of the university simulates the fundamental characteristics of a student - individuality, personal and professional growth, independence, self-respect, which is reflected in the labor code of the republic of Azerbaijan ([https://www.caa.gov.az/index.php?option=com\\_k2&view=item&id=123:labour-code-of-the-republic-of-azerbaijan&Itemid=173&lang=ru](https://www.caa.gov.az/index.php?option=com_k2&view=item&id=123:labour-code-of-the-republic-of-azerbaijan&Itemid=173&lang=ru)).

The study load is formed taking into account his individual abilities and capabilities. The student is provided with professional and academic orientation. Master students have academic freedom in the choice of discipline and teacher. A master's student, with the help of a supervisor, draws up an individual plan for each academic year based on a standard plan. Registration allows each student to draw up an individual learning path, which implies a student-centered approach in EP.

A clear procedure for enrollment in academic disciplines is practiced, the possibility of an individual choice of disciplines and a teacher, taking into account the required number of credits for the transition to the next course. The teacher helps each master's student individually during the training period, taking into account the interests, abilities, needs of the master's student

The university uses a point-rating system of assessment. Current and midterm control is carried out, as well as an assessment of the performance of independent work (on a 100 point scale). The results of the current and midterm control are displayed in the journal.

The official procedure for consideration of student applications / appeals in the relevant regulations is applied.

The provision of social, psychological and educational support to students is carried out through a network of support services: the Department of Master's program and the International Department.

For medical care, including to provide full-fledged medical care for undergraduates, the university operates a university polyclinic.

Students have the opportunity to participate in educational activities.

Academic mobility of undergraduates is one of the important areas of international and educational activities of the university.

The research work of the undergraduate is organized in accordance with the Regulation of research work and the plan of the department. A scientific supervisor is assigned to each undergraduate. The scientific supervisor of the master's student consults him, provides him with methodological assistance in writing scientific articles and master's work.

Undergraduates annually participate in student conferences.

Master students with specialization 060504 - "Analytical chemistry" in accordance with the schedule attend classes in various disciplines held at the department.

A student who does not agree with the result of the final control has the right to appeal. The appeal procedure for students' appeals is regulated by the order of the BSU rector.

The results of students' progress are regularly reviewed and analyzed at the meetings of the department.

In BSU, the rules for transfer, restoration and expulsion of students, as well as the rules for granting an academic leave are approved by the decision of the Academic Council of the BSU <http://tm.bsu.edu.az/az/shobe-tpt/> .

***Areas of improvement:***

Strengthening student mobility to foreign universities.

**The level of compliance - full compliance.**

**Standard 4. Students admission, learning outcomes, recognition and qualifications**

***Analysis and evidence:***

Institutions of higher education apply approved and published policies that cover all periods of the student's "life cycle".

The formation of the contingent of students is carried out on the basis of systematic career guidance work of the faculty and department throughout the year with undergraduate students and graduates who have completed their bachelor's degree programs and work in various organizations of the city and the republic.

Information stands are used to timely inform applicants and undergraduates.

Policy and procedures for admission to universities are consistent with the mission, vision and strategic goals of universities, published on the official website (<http://dim.gov.az/activities/exams/magistratura/>) and available to all future undergraduates.

Admission of undergraduates to EP in the specialty 060504 - Analytical chemistry is carried out on the basis of the rules for admission of undergraduates, in accordance with the standard rules for admission to the Master's program of higher educational institutions of the Republic of Azerbaijan, <http://dim.gov.az/activities/exams/magistratura/>.

The formation of a contingent of undergraduates for this specialty is carried out through budgetary funding and at the expense of citizens' own funds and other sources.

For the period of entrance examinations and enrollment in the Master's program at the State Examination Center (SEC), an admission office, subject examination and appeal commissions are created, the composition and powers of which are approved by the director of the SEC.

Currently, applicants to the Master's program are taking entrance examinations in a foreign language and logic.

Also, tutors, the department of Master's program and the dean's office are involved in the orientation procedure for undergraduates - freshmen.

All undergraduates are provided with a guidebook, which is one of the main information sources intended for the quick adaptation of undergraduates.

The university has a centralized electronic database of the contingent of undergraduates by types of educational programs and levels of education. It is also posted on the university website (<http://md.bsu.edu.az/az/>).

The university website has all the information to attract the necessary contingent of undergraduates, about the conditions of admission and special conditions for admission to educational programs <http://dim.gov.az/activities/exams/magistratura/>

Monitoring of the progress and achievements of undergraduates is carried out by the department and the dean's office, in conjunction with the educational and methodological department, the department of Master's program and doctoral studies.

The procedure for the elimination of academic arrears is carried out on a paid basis during the summer semester, according to the approved academic calendar.

Master's thesis and the result of its defense before the state certification commission are mandatory in the relevant specialty, with the issuance of a diploma.

When evaluating master's theses, feedback from supervisors and external reviews are taken into account.

Employment statistics of graduates are tracked at the university in a planned manner. EP graduates are provided with employment, on average, by 83.5%.

The employment rate of graduates in the specialty looks generally acceptable.

EP in the specialty has an appropriate structure of the combination of modules, correlated with the formulated learning objectives.

The curriculum of the specialty includes elective disciplines, taking into account the proposals of employers and undergraduates.

General cultural and professional competences are clearly described in the EP specializing in Analytical Chemistry.

In order to improve the quality of “postgraduate assistance” (verification period), an effective cooperation between graduates and employers is being sought and improved.

The university website has information on the admission conditions for students motivated to study.

The department took responsibility for monitoring the professional activities of each graduate for 5 years after graduation, observing his career growth.

The University actively cooperates on the recognition of qualifications, academic mobility.

***Positive practice:***

- The university conducts effective career guidance work with interaction with employers and potential applicants.
- The process of discussion and development of educational programs is carried out with the active involvement of employers and alumni of the program.

***Areas of improvement:***

The Department of Analytical Chemistry should more actively work on the career growth of graduates.

**The level of compliance - full compliance.**

**Standard 5. Teaching staff**

***Analysis and evidence:***

The University pays appropriate attention to the process of selection and training of faculty members. In accordance with the criteria of Standard 5, the analysis of reported data allows us to draw the following conclusions.

Personnel policy is regulated by the Government of the Republic of Azerbaijan and corresponds to the mission and policy of the university.

There are indicators on the qualitative and quantitative composition of the teaching staff for the last 5 years.

In relation to teachers and university staff, the following procedures are carried out: recruitment, promotion, encouragement, disciplinary sanctions, dismissal (Labor Code of the Republic of Azerbaijan No. 618-IQ of 03.12.2019); ([https://online.zakon.az/Document/?doc\\_id=30420364](https://online.zakon.az/Document/?doc_id=30420364)), as well as the internal rules of the university.

The university has a “Human Resources Department” and a “Quality Assurance and Monitoring Department” ([http://bsu.edu.az/ru/content/otdel\\_kadrov](http://bsu.edu.az/ru/content/otdel_kadrov), [http://bsu.edu.az/ru/content/otdel\\_obespechenia\\_kacestva\\_monitoringa](http://bsu.edu.az/ru/content/otdel_obespechenia_kacestva_monitoringa)).

The teaching staff meets the qualification requirements for licensing educational activities and the profile of educational programs. The qualifications and basic

education of the teaching staff of the department corresponds to the code of the specialty "Analytical chemistry".

There are statistical data on the number of scientific papers, in particular, articles published abroad and in republican journals, participation in international conferences, grants, patents for the reporting period from 2015 to 2020.

Appendices 5.2 and 5.3 show indicators for the qualitative and quantitative composition of the teaching staff of the department. Analysis of the data confirms the availability of human resources necessary for the implementation of the entire spectrum of the educational program 060504 - Analytical Chemistry.

For the 2014-2019 academic period, according to the approved schedule, the teaching staff of the department underwent a scientific and pedagogical internship at the institutes of ANAS and underwent advanced training at the BSU.

The activities of the teaching staff are planned on the basis of the individual work plan of teachers, which is updated every year and includes educational, methodological, research and educational work;

The teaching load of the teaching staff of the Department of Analytical Chemistry is, on average, 500 hours. At the beginning of the academic year, an order is issued on the assignment of disciplines to the departments (<http://bsu.edu.az/az/>).

EMC of BSU is the body that implements the state policy in the field of education and carries out general methodological activities. Created in the 1980s, the EMC currently has 17 members. [http://bsu.edu.az/ru/content/ucebnometodiceskiy\\_sovet\\_bakinskoqo\\_qosudarstvenno\\_qo\\_universiteta](http://bsu.edu.az/ru/content/ucebnometodiceskiy_sovet_bakinskoqo_qosudarstvenno_qo_universiteta).

The departments are systematically checked for educational and methodological work. The results demonstrate high quality indicators.

Teachers are given the opportunity to publish educational and methodological literature at the expense of the university.

Teachers are awarded distinctive badges, certificates and letters of gratitude from the Minister of Education of the Republic of Azerbaijan, the rector of the Belarusian State University, etc. for high performance in educational and methodological, scientific and research activities and public work.

The management of the department pays considerable attention to the prevention of conflicts of interest and conflicts of relations. The Code (Rules) of Academic Integrity reflects the requirements of corporate culture related to official subordination, work procedures, tolerance, and academic integrity.

A specific aspect of professional activity is assessed by a certain number of points. The results of the rating assessment of the teaching activity of the teaching staff are reviewed once a year at the Academic Council.

Scientific schools and research on the EP profile are shown in Table 5.11. For 2014-2020, the department completed 2 research projects.

The teaching staff successfully combines professional and scientific specializations, which is reflected in publications in foreign and domestic scientific journals. It should be noted that there is a positive trend in the number of published

articles, as well as an increase in the number of articles in journals with an impact factor.

The Department of Analytical Chemistry held the International Scientific Conference "Chemistry of Coordination Compounds: Actual Problems of Analytical Chemistry" dedicated to the 85th anniversary of Academician R.A.Aliyeva (2017) and the VIII International Scientific Conference "Chemistry of Coordination Compounds" dedicated to the 85th anniversary Department of "Analytical chemistry" (2020).

Thus, based on the analysis of data on compliance with standard five, full compliance with the assessment criteria was revealed.

***Positive practice:***

Active participation of the teaching staff of the department in the implementation of international projects.

***Areas of improvement:***

The involvement of foreign scientists-lecturers in the educational process.

**The level of compliance - full compliance.**

## **Standard 6. Learning resources and student support**

***Analysis and evidence:***

In accordance with the information provided in the external audit report within the framework of program accreditation at BSU, data analysis based on the criteria for standard six allows us to draw the following conclusions:

University teachers and undergraduates are guaranteed sufficient and easily accessible resources necessary for the successful implementation of educational programs. In this regard, it should be noted that:

The structure of the library has everything you need to assist students in mastering educational programs. All three reading rooms of the library are equipped with library equipment, scanners, computers connected to the Internet. The scientific library has **600** seats. **36** seats are equipped with a computer. The team work room is also equipped with a scanner, screen and projector. The library contains all the materials necessary for training: educational, technical, reference and general literature, various periodicals. The book fund of the library is 2,125,409 copies. and meets all the requirements, providing a full cycle of study at the university.

The university has a structural unit - the registration department, which provides assistance to undergraduates in the development of educational programs, and the necessary support is provided by the teaching staff in the person of qualified tutors, curators, consultants.



The department is equipped with modern tools, equipment, classrooms, laboratories. The level of equipment of all educational and laboratory rooms meets the requirements. All laboratories have Internet access.

For conducting classes of any profile at the Department of Analytical Chemistry, 9 rooms with a total area of 378 m<sup>2</sup> are equipped. The auditoriums are equipped with a magnetic board and a multimedia projector. All lecture and practical laboratories have computers with Internet access, which are used in the educational process.

For the implementation of the EP, there is a unified system of library and information services. The procurement of educational and methodological literature is regularly carried out at the request of departments and faculties.

An electronic catalog is used, which is constantly updated due to new acquisitions, which makes it possible to search for the necessary literature and provides access to electronic versions of individual textbooks and teaching materials. Access is provided through the library website (<http://elibrary.bsu.az>). The electronic catalog meets all modern requirements for searching and obtaining information online through the university's website. The electronic catalog of the library contains not only databases of textbooks, manuals, etc., but also electronic educational publications of university teachers.

There is a provision of the library fund of educational, methodological and scientific literature on general education, basic and major disciplines of educational programs on paper and electronic media; the literature fund is updated (every 5-10 years) in accordance with the norms determined by the qualification requirements for licensing.

The university has the opportunity to promptly receive and exchange information with domestic and foreign universities, libraries and organizations via e-mail and the Internet, which is implemented on the basis of a number of agreements, including with the scientific electronic publication Web of Science Core Collection, with national libraries other countries.

The university has a stable management and fully provides EP. The dynamics of financial resources allocated for the purchase of laboratory equipment, educational literature, periodicals, information resources, computers depends and is formed on the income of basic educational and other activities.

Providing graduate students with the opportunity to work in research laboratories that have the following modern types of devices: NMR spectrometer "Avance 300" - manufactured by Bruker, X-ray diffractometer "APEX II" - manufactured by Bruker, mass chromatographic spectrometer "Esquire" - manufactured by Bruker and Agilent, scanning electron microscope - manufactured by Hitachi et al.

Adequacy of funding for educational programs, both from budget funding and from income from the provision of paid educational services, allows you to expand and improve the material and technical base within the framework of licensing requirements.

***Positive practice:***

Graduate students are given the opportunity to work in research laboratories equipped with modern types of equipment.

***Remarks:***

- Lack of sufficient information on the academic mobility of students in the framework of educational program both within the country and abroad.
- Lack of Wi-Fi points to support graduate students in accessing the Internet in places convenient for them, teaching staff and employees.

***Areas of improvement:***

- The development of academic mobility programs among students of the educational program and the coverage of this information in various sources.
- Increasing the number of Wi-Fi points
- Offering students with the opportunity to work in research laboratories using modern types of analytical chemistry equipment such as Gas Chromatography and Mass Spectrometry.

**The level of compliance - full compliance.**

### **Standard 7. Public information**

***Analysis and evidence:***

In accordance with the information provided in the self-assessment report, as well as a result of an external audit conducted as part of program accreditation at Baku State University, the analysis of data based on the criteria allows us to draw the following conclusions:

Information on the specifics of educational programs is diverse. Annually, in order to provide broad information to the population about the activities and specialties of BSU, the rector of the university approves a plan of career guidance. In this regard, appropriate work is being carried out.

In particular,

- the university website provides general information about the university;
- information booklets are published on the specialties of BSU in Azerbaijani, Russian and English;
- there is a contact center of the university for inquiries on all issues;
- information and explanatory work is carried out year-round on the issues of admission to universities in Azerbaijan;
- a special issue of the “Bakı Universiteti” newspaper is regularly published; (<http://qazet.bsu.edu.az/az/>).
- the teaching staff of the departments carry out information and explanatory work;

- in the releases of AR TV channels, such as "AzTV", "İTV" periodically there is information about the EP:
- information about classifications of specialties is posted on the university website in the section "Master and Doctorate" (<http://md.bsu.edu.az/az/rub/1/magistratura/ixtisaslarin-tesnifati>);
- information on the admission rules is regularly posted on the website of the State Examination Center (<http://dim.gov.az/activities/exams/magistratura/>). The relevant information is also placed in a special (for masters) issue of the magazine "Applicant" - "Master".

***Positive practice:***

- The use of web resources to organize a transparent form of communication with the head of the university through his personal blog located on the main page of the university.
- Information about the teaching staff with the indication of e-mail addresses, which also allows you to get a professional answer to your question.

***Areas of improvement:***

Informing on the university website about vacancies for graduates, and posting information about those places of work where graduates of the university are already working.

**The level of compliance - full compliance.**

## CHAPTER 3

### CONCLUSION

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**Remarks and areas of improvements of expert group by the end of the external review:**

**Standard 1. Policy in the area of quality assurance of the educational program and academic integrity - Full compliance.**

**Standard 2. Development and approval of the educational program, information management - Full compliance.**

***Areas of improvement:***

- As the development of the accredited system, it is necessary to emphasize the development of the list and content of modules by teachers, which takes into account the set goals and is concretized by an integrated approach to the formation of educational programs.

- It is recommended to closely address the issues of the career ladder of graduates.

**Standard 3. Student-centered learning, teaching and assessment - Full compliance.**

***Areas of improvement:***

Strengthening student mobility to foreign universities.

**Standard 4. Students admission, learning outcomes, recognition and qualifications - Full compliance.**

***Areas of improvement:***

The Department of Analytical Chemistry should more actively work on the career growth of graduates.

**Standard 5. Teaching staff - Full compliance.**

***Areas of improvement:***

The involvement of foreign scientists-lecturers in the educational process.

**Standard 6. Learning resources and student support - Significant Compliance**

**Remarks:**

- Lack of sufficient information on the academic mobility of students in the framework of educational programs both within the country and abroad.
- Lack of Wi-Fi points to support undergraduates in accessing the Internet in places convenient for undergraduates, teaching staff and employees.

**Areas of improvement:**

- The development of academic mobility programs among students of the educational program and the coverage of this information in various sources.
- Increasing the number of Wi-Fi points
- Offering students with the opportunity to work in research laboratories using modern types of analytical chemistry equipment such as Gas Chromatography and Mass Spectrometry.

**Standard 7. Public information - Full compliance.****Areas of improvement:**

Informing on the university website about vacancies for graduates, and posting information about those places of work where graduates of the university are already working.

**PROGRAM**  
**of the external audit of the IQAA expert group**  
**to Baku State University in the frames of program accreditation**  
**March 15-16, 2021**

Time	Activity	Participants	Place
<i>Day 1: March 15, 2021</i>			
9:50* (11.50**)	Arrival at the University	H, EG, C	Office of the EG
10:00-11:00 12:00-13:00	Briefing, discussion of organizational issues	H, EG, C	Office of the EG Link for the conference
11:00-11:30 13:00-13:30	Interview with the Rector of the University	H, EG, C, Rector	Rector's office Link for the conference
11:30-11:45 13:30-13:45	Discussion, exchange of views of the members of the external expert group	H, EG, C	Office of the EG Link for the conference
11:45-12:15 13:45-14:15	Interview with the vice-rectors of the University	H, EG, C, Vice-rectors	Conference hall Link for the conference
12:15-12:30 14:15-14:30	Discussion, exchange of views of the members of the external expert group	H, EG, C	Office of the EG Link for the conference
12:30-13:00 14:30-15:00	Interview with heads of structural divisions	H, EG, C, Heads of structural divisions	Office of the EG Link for the conference
13:00-14:00 15:00-16:00	Visual review of the material and technical, educational and laboratory facilities in the areas of accredited educational programs	H, EG, Dean of the Faculty, Heads of departments	Campus Link for the conference
14:00-15:00 16:00-17:00	Lunch	H, EG, C	
15:00-15:30 17:00-17:30	Interview with the Dean and heads of departments	H, EG, C, Dean, Heads of departments	Office of the EG Link for the conference
15:30-15:45 17:30-17:45	Discussion, exchange of views of the members of the external expert group		Office of the EG Link for the conference
15:45-16:15 17:45-18:15	Interviews with teaching staff of departments in the areas of accredited educational programs	H, EG, C, Faculty	Office of the EG Link for the conference
16:15-16:30 18:15-18:30	Discussion, exchange of views of the members of the external expert group	H, EG, C	Office of the EG Link for the conference
16:30-17:00 18:30-19:00	Interview with Master students	H, EG, C, Master students	Office of the EG Link for the conference
17:00-17:15 19:00-19:15	Discussion, exchange of views of the members of the external expert group	H, EG, C	Office of the EG Link for the conference
17:15-17:45 19:15-19:45	Interview with graduates	H, EG, C, Graduates	Office of the EG Link for the conference
17:45-18:00 19:45-20:00	Discussion, exchange of views of the members of the external expert group	H, EG, C	Office of the EG Link for the conference

18:00-18:30 20:00-20:30	Interview with employers	H, EG, C, Employers	Office of the EG Link for the conference
18:30-18:45 20:30-20:45	Discussion, exchange of views of the members of the external expert group	H, EG, C	Office of the EG Link for the conference
<b>Day 2: March 16, 2021</b>			
9:50* (11.50**)	Arrival at the University	H, EG, C	Campus
10:00-11:00 12:00-13:00	Visit to the Center for the organization and Management of the educational process. Selective attendance of lessons	H, EG, Staff, Faculty, Master students	Office of the EG Link for the conference
11:00-11:15 13:00-13:15	Discussion, exchange of views of the members of the external expert group	H, EG, C	Office of the EG Link for the conference
11:15-11:45 13:15-13:45	Selective visits to research laboratories	H, EG, C, Representatives of practice bases	Office of the EG Link for the conference
11:45-12:15 13:45-14:15  12:15-12:45 14:15-14:45  12:45-13:15 14:45-15:15	Invitation of heads of departments at the request of experts: 1. Head of the Department of «Organic Chemistry» - Abel Magerramov, Doctor of Chemical Sciences, Academician 2. Head of the Department of «Chemistry of High-Molecular Compounds» - Rassim Alossmanov, Doctor of Chemical Sciences, Professor 3. Head of the Department of «Oil Chemistry and Chemical Technology» - Ibragim Mamedov, Doctor of Chemical Sciences, Professor	H, EG, C	Office of the EG Link for the conference
13:15-14:00 15:15-16:00	Discussion, exchange of views of the members of the external expert group	H, EG, C	Office of the EG Link for the conference
14:00-15:00 16:00-17:00	Lunch	H, EG, C	
15:00-18:30 17:00-20:30	Discussion, exchange of views of the members of the external expert group. Investigation of documentation on accredited educational programs. Invitation of individual representatives of departments and structural divisions at the request of experts. Preparation of external audit reports	H, EG, Heads of Departments, Heads of structural divisions	Office of the EG Link for the conference
20:30-21:00	Meeting with the Head and managements of university to present preliminary results of the external audit	H, EG, C	Rector's office Link for the conference

NB: H – Head of expert group, EG – expert group, C – coordinator

\* Baku, Azerbaijan time

\*\* Nur-Sultan, Kazakhstan time

**INTERVIEW PARTICIPANTS**

**Responsible for the programme accreditation**

<b>№</b>	<b>Full name</b>	<b>Position</b>	<b>Academic degree, title</b>
1	Abdulsaid Azizov	Dean	Doctor of Chemical Sciences, Prof.

**University Leadership**

<b>№</b>	<b>Full name</b>	<b>Position</b>	<b>Academic degree, title</b>
		<b>Rector</b>	
1	Elchin Babaev	Rector	Doctor of Philosophy in Physics and Mathematics, Associate Professor
<b>Vice-rectors</b>			
2	Irada Alieva	Vice-rector for the organization of the educational process and learning technologies	Doctor of Biological Sciences, Professor
3	Gussein Mamedov	Vice-rector for Science and Innovation	Doctor of Physical Sciences, Professor
4	Shahin Panakhov	Vice-rector for international relations	PhD in Geography, Associate Docent
5	Alish Agamirzaev	Vice-Rector for Social Affairs, Student Affairs and Public Relations	Doctor of Philosophy in Philology, Docent

**Heads of structural divisions**

<b>№</b>	<b>Full name</b>	<b>Position</b>	<b>Academic degree, title</b>
1	Adil Khassaev	Head of the department of organization of the educational process	Candidate of Geological and Mineralogical Sciences
2	Farkhad Aidynly	Head of the department for work with tutors	
3	Vagif Gassymov	Head of Quality Assurance and Monitoring Department	PhD in Physics and Mathematics
4	Arif Sadykhov	Head of the Psychological Aid Sector	
5	Ramin Samedov	Head of the Department of Humanitarian Affairs and Youth Policy	
6	Mais Suleimanov	Director of the Center for Organization of Scientific Activity and Innovation	Doctor of Physical and Mathematical Sciences
7	Afet Mamedova	Head of the Department of Master's and Doctoral Studies at the Center for Organization of Scientific Activity and	Doctor of Biological Sciences, Professor



		Innovation	
8	Rauf Gassanov	Head of the Department of International Relations	Doctor of Philosophy in Historical Sciences, Docent
9	Azbar Sadaev	Information Technology Center Director	Candidate of Physical and Mathematical Sciences, Docent
10	Shahin Askerov	Head of the Internet Technologies Department of the Information Technology Center	
11	Gunel Orudzhaliyeva	Head of Public Relations and Information Department	
12	Nigiyar Ismailova	Director of the Scientific Library	Doctor of Philosophy in Historical Sciences
13	Mustafa Muradov	Head of the Research Center for NanoResearch	Candidate of Physical and Mathematical Sciences, Docent
14	Iliyas Nasibov	Director of the Center for Student Scientific and Technical Creativity	

### Head of the Department

№	Full name	Position	Academic degree, title
1	Famil Chyragov	Head of the Department of Analytical Chemistry	Doctor of Chemical Sciences, Professor

### Teachers

№	Full name	Position	Academic degree, title
1	Khalil Nagiyev	Professor of the Department of Analytical Chemistry	Doctor of Chemical Sciences, Professor
2	Akhmed Babaev	Docent of the Department of Analytical Chemistry	Candidate of Chemical Sciences, Docent
3	Rizvan Abdullaev	Docent of the Department of Analytical Chemistry	Candidate of Chemical Sciences, Docent
4	Polad Mamedov	Docent of the Department of Analytical Chemistry	Candidate of Chemical Sciences, Docent
5	Gulshan Mugalova	Docent of the Department of Analytical Chemistry	Candidate of Chemical Sciences, Docent
6	Fagana Khalilova	Lecturer at the Department of Analytical Chemistry	Candidate of Chemical Sciences
7	Minaya Mamedova	Lecturer at the Department of Analytical Chemistry	Candidate of Chemical Sciences

### Master students

№	Name and surname	Speciality, grade
1	Iskendar Akhundov	Analytical Chemistry, I grade, aH/c
2	Nargiz Askerova	Analytical Chemistry, I grade, aH/c
3	Farida Kamal-Dzhafarova	Analytical Chemistry, I grade, aH/c
4	Kamaliya Gusseinova	Analytical Chemistry, II grade, a3/c
5	Rumiya Gusseinova	Analytical Chemistry, II grade, a3/c

6	Leila Albendova	Analytical Chemistry, II grade, a3/c
7	Gulnara Kurbanova	Analytical Chemistry, II grade, a3/c
8	Minakhanum Umudova	Analytical Chemistry, II grade, a3/c
9	Shahla Almamedova	Analytical Chemistry, II grade, aH/c

### Employers' representatives

№	Name and surname	Place of work, position
1	Elchin Aliev	Head of the central laboratory of OJSC "Azersu"
2	Dzhalal Nagiyev	Deputy Director at the National Center for Nuclear Research
3	Aidyn Pashadzhanov	Head of the laboratory at the Institute of Inorganic Chemistry and Catalysis of ANAS
4	Giunai Mikailova	Senior chemist at KEL
5	Parviz Nadirov	Docent at AGNPU

### Graduates

№	Name and surname	Speciality, year of graduation	Place of work, position
1	Tamara Gulieva	Analytical Chemistry, 2017	Tutor at ASPU
2	Aisel Gusseinova	Analytical Chemistry, 2017	Teacher at secondary school number 286
3	Aishen Soltanova	Analytical Chemistry, 2017	Teacher at secondary school number 6, Lachin region
4	Adile Ragimova	Analytical Chemistry, 2017	Teacher at the Kazakh branch of BSU
5	Abdulla Gadzhiyev	Analytical Chemistry, 2017	Senior Engineer at the National Center for Nuclear Research
6	Zumrud Mamedova	Analytical Chemistry, 2018	Junior Researcher at IKNKH ANAS
7	Nargiz Ragimly	Analytical Chemistry, 2019	Doctoral student at IKNKH ANAS
8	Kenul Akhmedova	Analytical Chemistry, 2019	Secondary school teacher in Shabran district
9	Aissel Gassymova	Analytical Chemistry, 2020	Laboratory assistant at SOCAR
10	Maral Mutallimova	Analytical Chemistry, 2020	High school teacher in Gabala region

## **LIST OF ADDITIONAL DOCUMENTS**

1. Master's dissertations of EP “Analytical Chemistry”