



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

**EXTERNAL REVIEW REPORT  
BAKU STATE UNIVERSITY**

**PROGRAM ACCREDITATION  
060504 – «Chemistry of High Molecular Compounds»**

**Nur-Sultan – 2021**

## ***EXPERT GROUP***



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

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	+			

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## ***CHAPTER 1***

### ***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.

#### **Location of the legal entity:**

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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 Chemistry of High Molecular compounds has been training specialists for various sectors of the national economy since 1964. Currently, training is carried out in the following specialties:

050508 - "Chemistry", 050109 - "Teacher of Chemistry", 050618 - "Chemical Engineering" (bachelor's degree);

060504 - "Chemistry of HMC", 060504 - "Chemistry of Composite Materials", 060641 – "Chemistry of nanomaterials" (Master's degree).

2304.01 - "Macromolecular Chemistry" (doctorate and dissertation in philosophy of chemical sciences, doctorate in doctor of sciences on chemistry).

2317.01- "Nanochemistry and Nanomaterials" (doctorate and dissertation in philosophy of chemical sciences, doctorate in doctor of sciences on chemistry)

2318.01- "Chemistry and technology of composite materials" (doctorate and dissertation in philosophy of chemical sciences, doctorate in doctor of sciences on chemistry)

The basis for the successful and competitive development of the department is determined by qualified teaching staff. Currently, the department employs 3 doctors-professors, 3 candidates (1 associate professors), 5 PhDs, 17 masters, preserving the continuity of the best cathedral traditions and introducing new ways of solving production and research tasks.

The scientific activity of the department is associated with deep and comprehensive research in the field of chemistry of high molecular compounds, polymer composite materials and nanomaterials. The department has a research laboratory (5 PhD).

The scientific and intellectual potential of the department allows you to work in close cooperation with organizations and enterprises such as SOCAR, the Institute of Chemistry of Additives, the Institute of Petrochemical Processes, the Institute of Catalysis and Inorganic Chemistry, the Institute of Polymer Materials of ANAS to implement the state program industrially -innovative development. 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.

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

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

Baku State University (BSU) prepares undergraduates in the framework of the educational program (EP) in the specialty "Chemistry of high-molecular compounds" (HMC): 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 (Appendix 1.1).

The Department of Chemistry of HMC adheres to the policy of quality assurance in the provision of services under the educational program 060504- "Chemistry of HMC". The policy has an official status and is available to all participants in the educational process and external stakeholders.

The main goal of the policy is to ensure the quality of educational activities and scientific research by fulfilling the requirements of consumers. 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.

To expand international relations, direct ties have been formed with many foreign scientific centers. At the university, agreements on cooperation in the field of education and science have been concluded with 182 foreign universities, including those on 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 of international cooperation were revealed, such as co-supervision of scientific work in conjunction with universities from other countries.

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

The educational activities of the university are carried out on the basis of the charter.

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 give students the opportunity to choose disciplines. Starting from the first year of study, students are involved in scientific activities, due to which they timely choose the topics of graduation theses. These facts confirm 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.



To combat corruption, the university introduced an automated information system "Appeal to the rector" (<https://www.emailmeform.com/builder/form/dP9t15Z2EKFu5j>), which creates conditions for maximum openness of control over knowledge assessment.

The university uses the licensed program "Anti plagiat", "Advego Plagiats", "Plagiarism Checkers", "Reaxys" to check the written works of undergraduates and teaching staff and to identify facts of academic fraud.

As the strengths the following aspects might be marked: the implementation of the educational program is carried out in accordance with the mission of the university, the ability to update the disciplines of individual educational trajectories at the request of employers and labor market conditions, etc.

According to the SWOT analysis the implementation of the educational program is carried out in accordance with the mission of the university, as well as the policy of the educational program complies with the specialty standard and is aimed at improving the quality of education in the specialty 060504 - "Chemistry of HMCs". Besides these, employers are participated in the preparation of an educational program.

As a weakness of the educational program are the following: the leading foreign scientists little involved in the educational process.

***Positive practice:***

Educational programs are developed with the participation of teaching staff, students and employers in accordance with scientific, theoretical and practice-oriented requirements for professional and social competencies.

***Area for improvement:***

To attract more leading foreign scientists to the educational process of the educational program.

**Level of the compliance – full compliance.**

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

***Analysis and evidence:***

In accordance with the internal rules, which include the process of administration, implementation and assessment of their effectiveness, an educational program has been developed and approved. These procedures are described in the document "Rules for the preparation of educational programs in the specialty" <http://md.bsu.edu.az/az/rub/1/magistratura/esasname>. The educational program for each level of education is developed in accordance with the national qualifications

system, has clearly formulated goals that are consistent with the mission of the university.

In accordance with the criteria of *Standard 2*, 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 was developed by the teaching staff of the department, discussed at a meeting of the department with the participation of employers of leading enterprises of the region on the basis of the academic calendar, was considered at the meetings of EMB, EMC 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: Polymer nanocomposites, Polymer sorbents, Chemistry of monomers, Polymer composites. Undergraduates are also involved in the process of forming the educational program.

The elective disciplines of the 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, the established scientific schools at the university, as well as the individual interests of the undergraduate.

The total labor intensity of the educational program of the scientific and pedagogical direction is 120 credits.

The working curriculum (WC) EP contains a schedule of the educational process with a time budget for courses, a list of modules with an indication of the number of credits <http://chemistry.bsu.edu.az/az/rub/kafedralar/yuksekmolekullu-birleshmeler-kimyasi>.

In accordance with SCS HE and the main curriculum of the EP, it is provided 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 a document "Academic policy" which regulates the provision on transfer of ECTS-type credits.

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 study load of undergraduates is reflected in credits. One academic hour is equal to 45 minutes of lectures, practical (seminar) classes. The ratio - credits/hours - is as follows: 1 credit equals 30 academic hours,

including, depending on the subject, 12-15 contact hours and the remaining hours for independent work.

Internal quality assessment and EP examination is carried out by monitoring the processes occurring at the university:

- Assessment of the activities of the department and teaching staff;
- organization and assessment of educational achievements of students;
- conducting internal audits
- collection and processing of proposals, comments and recommendations of employers, chairmen of the SAC, reviewers of master's theses, heads of teaching and research practices;

To control and assess the quality of the EP, representatives of the educational and methodological council of the faculty and the university have been regularly visited, and there is also an independent control of the head of the department. The results of these events are discussed at meetings of the educational and methodological council of the faculty and are reflected in the protocols of the educational and methodological council of the faculty, as well as the university and the department.

The qualifications obtained as a result 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.

According to the SWOT– analysis the following aspects could be specially noted:

- ✓ the modular educational program is designed in accordance with the compulsory and professional cycles;
- ✓ the main curriculum corresponds to the standard curriculum and the catalog of modules (disciplines);
- ✓ the specialty is fully provided (100%);
- ✓ updating of the elective module in accordance with the demands of the labor market and employers;
- ✓ availability of professional relations with universities of the Republic of Azerbaijan, Commonwealth of independent states.

### ***Positive practice:***

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.

### **Level of the compliance - full compliance.**

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

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

Master students are the main consumers of the EP. The educational environment of the university simulates the following characteristics of a master student: individuality, personal and professional growth, employment, independence and self-esteem. Employment and mutual relations are reflected in the Labor Code of the Republic of Azerbaijan.

The teaching load is formed taking into account a student's 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 enrolling 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 intermediate control is carried out, as well as an assessment of the performance of independent work (on a 100 point system). The results of current and intermediate control are put in the journal.

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

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

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

Students have the opportunity to participate in various educational activities.

The 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 "Regulations for research work" and the plan of the department. A scientific supervisor is assigned to each undergraduate. The scientific supervisor of the master students consults and provides them with methodological assistance in writing scientific articles and theses.

Master students annually participate in student conferences held by the university. Attention should be paid to an article published in a journal with an impact factor, one of the co-authors of which is a master student: Balayeva O.O., Azizov A.A., Muradov M.B., Alosmanov R.M., Mursalova G.Q., Rahimli K.S., Aghamaliyev Z.A. Synthesis of zinc-aluminum mixed oxide / polyvinyl alcohol (ZnAl mixed oxide / PVA) and application in Pb (II) removal from aqueous solution. Journal of dispersion science and technology, 2020. DOI: 10.1080 / 01932691.2020.1773848. (Mursalova Gulnar - graduate of 2020).

A student who does not agree with the result of the final control has the right to appeal. The appeal procedures for students' applications are regulated by the order of the Rector of BSU.

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

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

As the strengths the following positions should be emphasized:

- ✓ teachers and undergraduates of the department actively participate in international and republican scientific and practical conferences;
- ✓ teachers of the department take advanced training courses;
- ✓ satisfaction of undergraduates with the quality of implementation of the educational program;
- ✓ well-developed infrastructure of the university.

***Positive practice:***

Master students take part in assessing the quality of the implementation of educational program.

***Area for improvement:***

It is advised to strengthen academic mobility of students to foreign universities.

**Level of the compliance – full compliance.**

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

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

Higher education institutions 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 program and work in various organizations of the city and the republic.

Information stands are used to timely inform applicants and undergraduates.

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

Admission of undergraduates to EP in the specialty 060504 - Chemistry of the HMCs 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 budget funding and at the expense of citizens' own funds and other sources.

For the period of entrance examinations and enrollment in the magistracy 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.

At present, applicants take entrance examinations in a foreign language, and logic for the master's program.

Also, tutors, the staff of the department of the master's degree and the dean's office are involved in the orientation procedure for undergraduates.

All undergraduates are provided with a guidebook, which is one of the main information sources designed for the quick adaptation of undergraduates ([http://md.bsu.edu.az/az/rub/1/magistratura/magistrantin-yaddash\\_kitabchasi](http://md.bsu.edu.az/az/rub/1/magistratura/magistrantin-yaddash_kitabchasi), <http://chemistry.bsu.edu.az/az/rub/fakulte/magistratura>).

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/>)

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

Monitoring of progress and achievements of undergraduates is carried out by the department and the dean's office, together with the educational and methodological department, the department of master and doctoral studies.



The procedure for eliminating 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 managers and external reviews are taken into account. During the accreditation, the theses of 7 graduate students were examined by the employers.

Employment statistics of graduates are tracked at the university in a planned manner. EP graduates are provided with employment, on average, by 70,0%. During the audit a question about a number of graduate students was asked. The dean replied that according to the Cabinet of Ministers of the Republic of Azerbaijan, the number of graduate students is limited to 20% of undergraduate students. The dean also said that they are planning to increase the number of students with foreign students.

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. During the audit employers said that for now there is no lesson to be added. Also, they answered that the theoretical professional knowledge of the graduates was very good and their practical knowledge was good. The head of the department said there is connection between the courses taught during the accreditation with the industry. Specifically, 25% of the total 120 credits in the program are elective courses and these courses are directly related to the industry.

The EP in the specialty "Chemistry of HMCs" clearly describes general cultural and professional competencies.

There are two types of competencies:

General cultural skills:

- The ability to easily adapt to new conditions, including new working conditions
- The ability to easily adapt to new conditions, including new working conditions
- Reading scientific literature and knowing one of the foreign languages (mostly English) at the level of speaking skills

Professional skills:

- To know the theoretical basis of polymer synthesis methods
- Knowledge of modern methods for studying polymers, polymer solutions and polymer-based nanocomposites
- To know the main application areas of various polymer-based materials and others

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

The university website has information on admission conditions for students motivated to study (<http://md.bsu.edu.az/az/article/6>).

The department took upon itself the responsibility to monitor the professional activities of each graduate for 3 years after graduation, observing his career growth. Graduates said that the courses were sufficient in general. They also think that the vocational elective courses they have taken contribute to their work in the chemistry sector.

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

The acceptance of the graduate programs within the scope of the program is carried out by the State Examination Center for the whole country. The exam is held for all programs at the same time. All students with a bachelor's degree can take this exam.

Head of the department during the interview said that the most important goal of the master's program is to prepare the students to work in the field of polymer chemistry from a scientific-basic and practical point of view.

As potentially positive internal factors the following aspects could be highlighted:

- expansion of professional cooperation with enterprises;
- improving the content of the competence module;
- availability of feedback (competence model of the graduate);
- competence of teaching staff and administration;
- the final state certification serves to check the learning outcomes in general and makes it possible to assess the totality of professional competencies that a master's student has.

The potentially negative internal factors are:

- a small number of applicants are on grant funding entering the specialty 060504 - Chemistry of HMCs;
- lack of academic mobility program.

***Positive practice:***

1. The university conducts effective career guidance work with interaction with employers and potential applicants.

2. The process of discussion and development of educational programs is carried out with the active involvement of employers and alumni of the program.

**Level of the compliance – full compliance.**

## Standard 5. Teaching staff

### *Analysis and evidence:*

The University pays appropriate attention to the process of selection and training of the teaching staff. In accordance with the criteria of standard 5, the analysis of reported data allows expert group 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.

In relation to teachers and university employees, the following procedures are carried out: recruitment, promotion, encouragement, disciplinary action, dismissal (Labor Code of the Republic of Azerbaijan No. 618-İQ dated 03.12.2019); ([https://online.zakon.kz/Document/?doc\\_id=30420364](https://online.zakon.kz/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\\_obespec\\_enia\\_kacestva\\_monitorinqa](http://bsu.edu.az/ru/content/otdel_obespec_enia_kacestva_monitorinqa) )

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 correspond to the code of the specialty "Chemistry of HMCs".

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.

Tables 5.2 and 5.3 show indicators of 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- Chemistry of HMCs.

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

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 and research work;

The teaching load of the teaching staff of the Department of Chemistry of HMCs is 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 a body that implements the state policy in the field of education and carries out general methodological activities. Created in the 1980s, 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 for educational and methodical work are systematically checked. The results demonstrate high-quality indicators.

The possibility of publishing educational and methodological literature at the expense of the university is provided to teachers.

For high performance in educational, methodological, research activities and public work teachers are awarded distinctive badges, certificates and letters of gratitude from the Minister of Education of the Republic of Azerbaijan, the rector of BSU, etc.

The management of the department pays significant 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 evaluated by a certain number of points. The results of the rating assessment of the teaching activity of the teaching staff are considered once a year at the Academic Council. During the interview expert group asked about how the activities of the teaching staff were monitored. The rector answered that there is a special group to follow. In addition, the head of the department, the dean, the faculty and the members of the teaching-methodical council of the university attend the classes of the teaching staff. An evaluation is then made.

Scientific schools and research on the EP profile are shown in Table 5.8. During 2014-2020, the department carried out 9 research projects: (4 International, 3 Republican, 2 intra-university). During the interview, the participation of the staff in various projects was noticed. The employees get extra money within the project. Generally, financial support for projects is provided by university, local or international funds.

Professional and scientific specialization, which is reflected in publications in international and domestic scientific journals. There is the positive dynamics in the number of published articles, as well as an increase in the number of articles in journals with an impact factor. The salaries are generally the same among faculty. However, for an article published in journals Q1 and Q2, there is an additional payment for teaching staff.

According to the SWOT analysis department of "Chemistry of HMCs" has qualified staff of teaching staff and high administrative level.

Active participation and organization of scientific and practical conferences, seminars, round tables by teaching staff could be noted.

The modernization of postgraduate higher education in the context of international requirements, improving the quality of education, as well as improvement of the legislative and regulatory framework for education could be noted as potentially positive external factors.

A weak level of knowledge of foreign languages and low level of mobility of the teaching staff could be noted as potentially negative internal factors.

The teachers both give lectures and the students study the subject at home according to their request from the syllabus, then they investigate the subject to the university.

***Positive practice:***

The active participation of the teaching staff of the department in the implementation of international projects should be noted.

***Area for improvement:***

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

**Level of the compliance – full compliance.**

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

***Analysis and evidence:***

In accordance with the information provided in the external audit report as part of program accreditation at BSU, data analysis based on the criteria for standard 6 allows expert group to draw the following conclusions.

The 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 is needed to assist students in mastering educational programs. All 3 reading rooms of the library are equipped with library equipment, scanners, computers, and are connected to the Internet. The scientific library has 600 seats. 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 library book fund 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 instruments, equipment, audiences, laboratories. The level of equipment of all educational and laboratory rooms meets the requirements. All laboratories have Internet access.

To conduct classes of any profile at the Department of Chemistry of HMCs, 7 rooms with a total area of 238.5 m<sup>2</sup> are equipped. The audience 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.

A unified system of library and information services operates to implement the EP. 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 allows you 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 profiling 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 of others countries.

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

Providing graduate students with the opportunity to work in research laboratories that have the following modern types of devices: Derivatograph connected to the mass spectrometer "NETZSCH STA 449 F3 Jupiter®" - manufactured by Netzsch, Spectrometer with Inductively coupled plasma "Optima 2100 DV" - manufactured by Perkin Elmer, NMR spectrometer "Avance 300" - manufactured by Bruker, X-ray diffractometer "APEX II" - manufactured by Bruker, Mass chromatographic spectrometer "Esquire" - manufactured by Bruker and Agilent, Electron scanning microscope - manufactured by Hitachi, etc.

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.

According to the SWOT analysis such aspects, as modern scientific and educational infrastructure of the campus type, sufficient computer and software, rich library fund, high satisfaction of undergraduates, 90% employment of graduates, participation in the formation of EP of heads of enterprises and organizations are potentially positive internal factors. Besides these, the possibility of an overhaul of educational buildings, development of new communication technologies, the



possibility of replenishing the book fund with multimedia complexes and textbooks could be considered as favorable opportunities. The world economic crisis, the issue of inflation, which prevents the replenishment of the material base are threats for the EP.

***Positive practice:***

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

**Level of the 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 the program accreditation to Baku State University, the analysis of data based on the criteria allows expert group 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 work. In this regard, relevant work is being carried out:

- 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/> );
- Teaching staff of the departments carry out information and explanatory work; in the issues of AR TV channels, such as "AzTV", "İTV" periodically there is information about the EP:
  - Information about the 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".

SWOT analysis allows to note the following strong aspects:

- The university publishes information about its activities in general and about the implementation of educational programs.

- The EP management uses a variety of ways to disseminate information.

- An important factor is the participation of the EP in a variety of external evaluation procedures, including ratings and ranking.

Along with these the following point can be considered as weaknesses:

- Incomplete adequate and objective information about teaching staff, including on the personal pages of teaching staff.

- Incomplete information about cooperation.

However, it should be noted that the English version of the website is not full. Some information should be added in order to provide all stakeholders with the relevant, actual and up-to-date information.

***Positive practice:***

The use of web resources to organize a transparent form of communication with the head of the university through personal blog on the main page of the university. In addition, there is information about the teaching staff with the indication of e-mail addresses, which also allows students to get access to them.

***Area for improvement:***

The department needs to improve its English version of the website and provide relevant and up-to-date information.

**Level of the compliance – full compliance.**

## **CHAPTER 3**

### **CONCLUSION**

**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.**

***Area for improvement:***

To attract more leading foreign scientists to the educational process of the educational program.

**Standard 2. Development and approval of the educational program, information management – full compliance.**

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

***Area for improvement:***

It is advised to strengthen academic mobility of students to foreign universities.

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

**Standard 5. Teaching staff – full compliance.**

***Area for improvement:***

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

**Standard 6. Learning resources and student support – full compliance.**

**Standard 7. Public information – full compliance.**

***Area for improvement:***

The department needs to improve its English version of the website and provide relevant and up-to-date information.

**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	Discussion, exchange of views of the	H, EG, C	Office of the EG

19:45-20:00	members of the external expert group		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
11:15-12:15 13:15-14:15	Selective visits to research laboratories	H, EG, C, Representatives of practice bases	Office of the EG Link for the conference
12:15-12:45 14:15-14:45 12:45-13:15 14:45-15:15 13:15-13:45 15:15-15:45	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
13:45-14:00 15:45-16:00	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**

**A responsible person for conducting program accreditation**

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

**University management**

<b>№</b>	<b>Name and surname</b>	<b>Position</b>	<b>Academic degree, title</b>
2.	Elchin Babaev	Rector	Doctor of Philosophy in Physics and Mathematics, Associate Professor
3.	Irada Alieva	Vice-rector for the organization of the educational process and learning technologies	Doctor of Biological Sciences, Professor
4.	Gussein Mamedov	Vice-rector for Science and Innovation	Doctor of Physical Sciences, Professor
5.	Shahin Panakhov	Vice-rector for international relations	PhD in Geography, Associate Docent
6.	Alish Agamirzaev	Vice-Rector for Social Affairs, Student Affairs and Public Relations	Doctor of Philosophy in Philology, Docent
7.	Aydin Kyazimzade	Rector's Advisor for Science and Education	Doctor of Physical and Mathematical Sciences, Professor
8.	Mirza Mirzayev	Rector's Advisor on financial issues	
9.	Ali Nagiyev	Rector's Advisor for Strategic Development and Relations	Doctor of Philosophy in Engineering

**Heads of structural divisions**

<b>№</b>	<b>Name and surname</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 Innovation	Doctor of Biological Sciences, Professor
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	

### Teaching staff

№	Name and surname	Position	Academic degree, title
1	Rasim Alosmanov	Professor	Doctor of Chemical Sciences, Professor
2	Abdulsaid Azizov	Professor	Doctor of Chemical Sciences, Professor
3	Ogtay Akperov	Professor	Doctor of Chemical Sciences, Professor
4	Elchin Akperov	Professor	Doctor of Chemical Sciences, Professor
5	Elgul Abdullaeva	Docent	Candidate of Chemical Sciences, Associate Professor
6	Elvin Malikov	Teacher	PhD in Chemistry
7	Ophelia Balaeva	Teacher	PhD in Chemistry

### Master students

№	Name and surname	Specialty, year (GPA)
1	Leila Talibova	Chemistry of high-molecular compounds 1 year
2	Natella Mikailova	Chemistry of high-molecular compounds 1 year
3	Gulnar Suleymanova	Chemistry of high-molecular compounds 1 year
4	Guzel Abdullaeva	Chemistry of high-molecular compounds

		2 year
5	Oruj Aliyev	Chemistry of high-molecular compounds 2 year
6	Muzhgan Binnatova	Chemistry of high-molecular compounds 2 year

### Employers

<b>№</b>	<b>Name and surname</b>	<b>Place of work, job position</b>
1	Mammadov Bakhtiyar	Director of the National Academy of Sciences of Azerbaijan, Institute of Polymer Materials
2	Ahmadova Gulnara	Head of the Laboratory of the National Academy of Sciences of Azerbaijan named after SOUTH. Mamedalieva, Institute of Petrochemical Processes
3	Akhundov Teymur	SOCAR, Production Association "Azerikhimiya", Head of Technical and Production Department

### Graduates

<b>№</b>	<b>Name and surname</b>	<b>Specialty, graduation year</b>
1	Elvin Aliev	Chemistry of high-molecular compounds 2013
2	Amalia Karimli	Chemistry of high-molecular compounds 2016
3	Shafiga Ibragimova	Chemistry of high-molecular compounds 2016
4	Ziya Aslanli	Chemistry of high-molecular compounds 2017
5	Gunay Balakishieva	Chemistry of high-molecular compounds 2019
6	Gunel Mamedova	Chemistry of high-molecular compounds 2019
7	Gulnar Mursalova	Chemistry of high-molecular compounds 2020
8	Fidan Mamedyarova	Chemistry of high-molecular compounds 2020

## **LIST OF ADDITIONAL DOCUMENTS**

1. Master's theses issued in 2017, 2018, 2019 and 2020.
2. Study plans.
3. Curriculum.
4. Graduate student's theses.