IQAA

INDEPENDENT AGENCY
FOR QUALITY ASSURANCE IN EDUCATION — IQAA

REPORT
ON THE EXTERNAL AUDIT
OF BAKU STATE UNIVERSITY

PROGRAM ACCREDITATION

7005001 – MICROBIOLOGY

Astana, 2026

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DEGREE OF CONFORMITY OF THE SELF-EVALUATION REPORT TO THE ACTUAL STATE OF THE EDUCATIONAL PROGRAM 7005001 "MICROBIOLOGY" FOR EACH STANDARD

Standards	**Indicate the degree of compliance of the self-assessment report with the actual state of affairs at the university for each standard**			
	Full compliance	**Significant compliance**	**Partial compliance**	**Non-compliance**
Standard 1 Policy on Educational Program Quality Assurance and Academic Integrity	+			
Standard 2 Curriculum Development and Approval, Information Management	+			
Standard 3 Student-centered learning, teaching, and assessment	+			
Standard 4 Admissions, Academic Performance, Recognition, and Certification	+			
Standard 5 Faculty	+			
Standard 6 Learning Resources and Student Support	+			
Standard 7 Public Information	+			

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CHAPTER 1

CONTEXT AND OBJECTIVES OF THE VISIT

Introduction

On March 12–13, 2026, an expert group conducted an on-site visit to Baku State University as part of the international program accreditation procedure. The on-site visit was conducted in accordance with the Program developed by the IQAA and agreed upon with the university. All materials necessary for the work of the external expert group (EEG)—the visit program, the self-assessment report for program accreditation, the composition of the external expert group, the list of interview participants, methodological recommendations for organizing and conducting the external evaluation, the expert code of ethics, and the template for the EEG's accreditation report—were provided to the members of the expert group prior to the start of their work at the educational institution, which enabled them to prepare for the external evaluation procedure in a timely manner.

The self-assessment report on the educational programs of Baku State University contains sufficient information presented in accordance with program accreditation standards, identifies strengths and weaknesses, and highlights external threats and opportunities for risk management and the university's further development.

In accordance with the EEG visit program, a visual inspection was conducted, which allowed the members of the expert group to gain a general understanding of the organization of the educational, methodological, and research processes, as well as the material and technical infrastructure, and to determine their compliance with standards. In addition, meetings were held with the university administration, vice-rectors, deans of faculties and department heads, faculty members, representatives of academic schools, undergraduate and graduate students, alumni, and employers.

During the external audit, experts reviewed the university's regulatory documentation to gain a more detailed understanding of its document management, educational and methodological, research, and material and technical support, the university's website, its navigation and content, as well as the presentation of the university's educational programs on the pages and tabs of the university's website, in the media, and on other electronic resources.

The activities planned during the external visit contributed to a more detailed understanding of the university's structure and operations and allowed external experts to conduct an independent assessment of the self-assessment report's alignment with the actual state of affairs at the university and program accreditation standards.

As part of the accreditation process, special attention was paid to **the master's program 7005001 – "Microbiology,"** offered by the Department of Biology. The program represents an interdisciplinary field that integrates concepts and methodologies from physics, biology, chemistry, and computational sciences to investigate the physical mechanisms underlying biological systems.

The primary objective of the external evaluation was to determine the extent to which the educational program meets **the IQAA program accreditation standards**, including the quality assurance system, curriculum development and implementation, student-centered learning, faculty qualifications, educational resources, and transparency of public information.

The expert panel also assessed the program's alignment with the requirements of modern higher education and scientific research in the field of microbiology. Particular attention was paid to the program's research potential, the qualifications and research productivity of the faculty, student involvement in research activities, as well as the program's relevance to the needs of the labor market and the scientific community.

The evaluation was conducted based on document analysis, interviews with key stakeholders, an inspection of the facilities and infrastructure, and a review of supporting materials provided by the university. These activities allowed the expert panel to gain a comprehensive understanding of the educational program and assess its compliance with established accreditation standards.

Key Characteristics of the University

Full name of the educational institution: **Baku State University**.
Year of foundation and establishment: **1919**.

The mission of Baku State University is to train highly qualified, competitive in the domestic and international labor markets, and imbued with a spirit of patriotism—scientific, pedagogical, and engineering-technical personnel—based on the acquisition of fundamental knowledge and skills in innovative research in the field of interdisciplinary lifelong education and scientific research in accordance with international standards.

The University provides education at all levels of higher education, as well as pre-university and continuing education.

In the field of scientific activity, Baku State University conducts fundamental, theoretical, methodological, pedagogical, and applied scientific research, as well as the implementation of research results into practice and the industrial and innovative development of the country.

The university's highest governing body is the Academic Council.

Baku State University comprises **16 faculties** that train specialists in **55 bachelor's degree programs and 153 master's degree programs** across various academic fields; **4 institutes**; a well-stocked academic library; **21 scientific, methodological, and practical journals** published by the university; as well as a university clinic serving the university's faculty, staff, and students.

Baku State University has a well-developed and functional infrastructure that meets modern requirements. The university has **four academic buildings** equipped with lecture halls and computer labs featuring state-of-the-art technical equipment. All university buildings are connected to a single corporate computer network, ensuring their integration into a shared information space. The university library, equipped with electronic reading rooms and providing free access to the Internet, creates the necessary conditions for the effective organization of students' educational and research activities. The educational television studio provides additional opportunities for implementing innovative forms of organizing the educational process.

The Faculty of Biology, which offers **the Master's program** in Microbiology, is one of the university's key academic units in the field of life sciences. The faculty combines educational activities with scientific research and maintains cooperation with national research institutes and scientific organizations. The Department of Molecular Biology and Biotechnology plays a central role in implementing the educational program and supporting research activities in the interdisciplinary field of microbiology.

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CHAPTER 2

EXTERNAL AUDIT REPORT PREPARED BY THE EXPERT GROUP

Introduction

The external evaluation of the Master's degree program 7005001 – "Microbiology" at Baku State University (BSU) was conducted as part of the international accreditation procedure for educational programs organized by the Independent Agency for Quality Assurance in Education (IQAA).

Baku State University, founded in 1919, is one of the oldest and leading higher education institutions in the Republic of Azerbaijan and the South Caucasus region. The university offers a wide range of academic programs at the bachelor's, master's, and doctoral levels across many academic disciplines. The university is gaining increasing international recognition and is featured in global rankings such as the QS World University Rankings and Times Higher Education, reflecting its growing research potential and international standing.

The Master's program **7005001 – "Microbiology"** is offered by **the Department of Biology** and is designed as an interdisciplinary program that integrates concepts and methods from physics, biology, chemistry, and mathematics. The program focuses on the study of the physical principles underlying biological systems and aims to train specialists capable of conducting scientific research in the field of microbiology and related interdisciplinary areas.

The program complies with **the European Credit Transfer and Accumulation System (ECTS)** and consists of **120 ECTS credits spread over a two-year period (four semesters)**. Each semester corresponds to approximately **20 weeks of academic activity**. The curriculum includes theoretical courses, laboratory and practical sessions, research and teaching internships, as well as the preparation and defense of a master's thesis.

The program aims to provide students with fundamental, systematic knowledge of the biology, genetics, ecology, and physiology of microorganisms and to train specialists capable of analyzing and applying microbiological processes using modern scientific approaches.

Students participate in research activities and present the results of their work at scientific conferences organized at the faculty level and beyond. Such activities contribute to the development of scientific thinking and research skills among students.

According to documentation provided by the university and confirmed during the on-site visit, the academic performance of students enrolled in this program is high: the average grade ranges from 93 to 96 points. Interviews with graduates and employers revealed that many students secure employment while still in school or shortly after graduating, particularly if their internships and thesis projects are linked to external research institutes and applied laboratories.

Overall, the program has a research focus and contributes to the training of specialists capable of working in research institutions, universities, medical

laboratories, and other scientific or technological sectors. The site visit further demonstrated that the program is implemented through an effective combination of university-based instruction and access to state-of-the-art research infrastructure at collaborating independent institutions.

Standard 1. Quality assurance policies for the educational program and academic integrity

Evidence and Analysis

The implementation of the curriculum for the specialty "7005001 – Microbiology" is based on the quality assurance principles of Baku State University (hereinafter – BSU). Quality improvement and the maintenance of educational standards are ensured through the participation of all structural units, including the administration, the Dean's Office of the Faculty of Biology, the faculty of the Department of Molecular Biology and Biotechnology, as well as students, where BSU's goal is to train specialists who meet international standards, are competitive, and utilize innovative technologies through the integration of science, education, and industry. (Self-Assessment Report).

BSU places importance on achieving academic success and maintaining high ethical standards in the university environment, where the Ethics Committee plays a role in promoting the principles of integrity and transparency, which includes: developing, implementing, and regularly updating codes of ethical conduct; promoting and disseminating ethical principles among students, faculty, and administrative staff; and reviewing violations of ethical standards and taking appropriate corrective measures. This Ethics Committee also provides mechanisms for filing complaints and appeals, through which students, faculty, and other staff may submit their requests to in writing, via BSU's official email address, or through online application forms. (Self-Assessment Report).

At BSU, the Scientific and Methodological Council operates in accordance with the "Regulations on the Organization of Scientific and Scientific-Methodological Activities in Higher Education Institutions," approved by Resolution No. KQ-12 of the Board of the Ministry of Science and Education on September 3, 2024. The Council facilitates the organization of the educational process in accordance with international standards and labor market requirements, providing the necessary scientific-methodological and educational-methodological documentation. (Self-Assessment Report).

During a visual inspection of BSU, all classrooms and laboratories were found to be equipped with video surveillance systems, which allow for real-time monitoring of the educational process.

At BSU, the integration of the educational process with research activities is viewed as one of the fundamental principles of implementing quality assurance policies, with particular attention paid to academic integrity. Academic integrity is one of the University's strategic priorities. (Self-Assessment Report).

According to the requirements of the Higher Attestation Commission under the President of the Republic of Azerbaijan, the absence of plagiarism in academic dissertations is a mandatory requirement. Therefore, all dissertations submitted for the degrees of Doctor of Philosophy (PhD) and Doctor of Science to the dissertation councils operating within the faculties of BSU are required to undergo anti-plagiarism checks. The protection of copyright for scientific and educational-methodological materials, as well as the prevention of plagiarism, is carried out by the Anti-Plagiarism Commission operating at BSU. Information obtained as a result of the Commission's activities is regularly submitted to the rector and annually presented to the Academic Council of BSU in the form of a report. The Anti-Plagiarism Commission, established by order of the rector, performs the primary function of checking scientific and educational-methodological works prepared at the University using the "StrikePlagiarism" system and analyzing the results obtained. All scientific works prepared by University staff, doctoral candidates, graduate students, master's students, and undergraduate students are subject to review by the Commission. This system is used to assess the originality of materials from national and international conferences held at BSU, as well as articles published in scientific journals. Academic papers are initially checked through the university account. If plagiarism is detected, the paper is returned to the author for corrections. The author is required to make corrections and resubmit the work for review within three months (for a fee). If plagiarism is detected after the second review, the author must request a third review from the rector. Research papers that do not pass this stage are not admitted for defense or publication. In accordance with the relevant decision of the Academic Council of BSU, the following criteria are applied when evaluating research papers for a master's thesis: if plagiarism is ≤ 10% and AI usage is ≤ 20%, the paper is admitted for defense; if plagiarism ranges from 11% to 50% and/or AI usage from 21% to 50%, the work is sent for revision; if plagiarism exceeds 50% and/or AI usage exceeds 50%, the work is not admitted for defense. (Self-assessment report).

Between 2017 and 2024, the Commission reviewed a total of 12,884 academic papers. The review procedure covers academic works prepared by BSU faculty and research staff, doctoral and master's students, fourth-year students, as well as students who have been required to repeat a year. All dissertations submitted to the University's dissertation councils undergo plagiarism checks. In the 2024/2025 academic year, the Commission reviewed the following number of scientific and educational materials: 45 textbooks, teaching aids, and monographs; 22 doctoral dissertations; 135 PhD dissertations; 13 conference proceedings; 956 master's theses; 987 bachelor's theses. (Self-Assessment Report)

To strengthen the fight against corruption and implement preventive measures, the Academic Council of BSU, at its meeting on April 13, 2023, approved the "BSU Action Plan for 2023–2026 to Strengthen the Fight Against Corruption and Offenses Contributing to Corruption," which was subsequently approved by the BSU Rector via Order No. R-47 dated May 2, 2023. Based on the approved Action Plan, a series of measures is being implemented, and reports on its progress are

presented at meetings of the University's Academic Council. (Self-assessment report).

Level of compliance with Standard 1 – Full compliance

Standard 2. Development and Approval of the Educational Program, Information Management

Evidence and Analysis

The University's Strategic Development Plan (hereinafter referred to as the SDP) was developed based on a number of important legal and regulatory documents. These primarily include the Law of the Republic of Azerbaijan "On Education" and the Law of the Republic of Azerbaijan "On Science." In addition, the document was prepared in accordance with the "State Strategy for the Development of Education in the Republic of Azerbaijan," approved by the Decree of the President of the Republic of Azerbaijan dated October 24, 2013, as well as with the "Action Plan for the Implementation of the State Strategy for the Development of Education in the Republic of Azerbaijan." At the same time, the SPD was developed in accordance with the "State Program for Enhancing the International Competitiveness of the Higher Education System of the Republic of Azerbaijan for 2019–2023" and the document "Azerbaijan-2030: National Priorities for Socio-Economic Development," approved by the Decree of the President of the Republic of Azerbaijan dated February 2, 2021. In addition, the Plan is based on the Action Plan prepared to implement Presidential Decree No. 2199 of July 13, 2016, "On Additional Measures to Improve the Business Environment in the Republic of Azerbaijan and Further Enhance the Country's Position in International Rankings." The SPR has also been developed taking into account relevant government decisions, as well as regulatory and legal documents of the Ministry of Science and Education (hereinafter – MSE). (Self-Assessment Report).

The SRP is approved by the University's Board of Trustees and implemented under the supervision of the University's Academic Council and under the leadership of the rector. According to statements by the university's leadership, BSU's mission is to provide high-quality educational services based on scientific principles and national-cultural values, in accordance with contemporary requirements, as well as to function as a leading institution of higher education with an innovative and research-oriented academic environment and international competitiveness.

The master's-level curriculum for the specialization in "Microbiology" has been developed in accordance with the Law of the Republic of Azerbaijan "On Education," Cabinet of Ministers Resolution No. 75 "On the Approval of the State Standard and Higher Education Program," as well as Resolution No. 88 "On the Rules for the Content, Organization of Master's Education, and Awarding of the Master's Degree," and other relevant regulatory documents. This specialization, "7005001 – Microbiology," has the following objectives: to train specialists with

fundamental and applied knowledge in the field of microbiology who are capable of working independently in laboratory settings, conducting scientific research and analysis, and preparing reports; to develop microbiological knowledge applicable in healthcare, ecology, education, and industry; to train specialists possessing fundamental and applied research skills and the potential for international cooperation. (Self-Assessment Report).

The National Qualifications Framework for Education of the Republic of Azerbaijan (AzNQF) was approved by the Cabinet of Ministers of the Republic of Azerbaijan on July 18, 2018 (No. 311). The main objective of this framework is to ensure a unified classification of various levels of education within the country's education system and to create conditions for the precise and transparent definition of knowledge, skills, and competencies. The AzNQF also aims to present learning outcomes in a format that is comparable at the international level. The learning objectives and outcomes for the "Microbiology" specialization have been developed based on the National Qualifications Framework, as well as taking into account the priorities and needs of the regional labor market. The program aims to provide students with fundamental, systematic knowledge of the biology, genetics, ecology, and physiology of microorganisms and to train specialists capable of analyzing and applying microbiological processes using modern scientific approaches. The main objectives of the educational program include: developing students' theoretical knowledge, practical skills, and analytical thinking; fostering skills for working in modern laboratory settings, responsibility for adhering to ethical standards, analyzing results, and conducting scientific research. (Self-assessment report).

As a result of their studies, graduates acquire the following professional competencies: knowledge of the structure, physiology, biochemistry, evolution, classification, and taxonomy of microorganisms; the ability to conduct microbiological analyses (cultural, microscopic, molecular, biochemical, etc.); the use of scientific databases (BakDive, EPPO, MBGD, MiDAS, NCBI, Virus-HostDB, etc.); knowledge of pathogenic microorganisms and their interaction with the host; investigation of the potential applications of microorganisms in industry, agriculture, medicine, and other fields; documentation of the results of statistical processing and analysis of experimental data. (Self-assessment report).

The total program load is 120 credits, of which: 18 credits are core courses designated by the Ministry; 72 credits are required and elective courses approved by the university; 12 credits are for internships; and 18 credits are for the master's thesis. The duration of study is 2 years (4 semesters). The educational process includes: theoretical instruction—45 weeks; internships—8 weeks; exam sessions—15 weeks; thesis preparation and defense—12 weeks; and breaks—14 weeks. Learning outcomes are formulated in accordance with the Dublin Descriptors and include five core components: knowledge, skills, judgment, communication, and autonomy and responsibility. To enhance the practical training of master's students, research and teaching internships are organized (12 credits). (Self-assessment report).

Interviews with master's students in the "Microbiology" program revealed that they complete their internships at research institutes and industrial facilities, including international companies such as Coca-Cola.

Highly qualified faculty members (12 professors and instructors) are involved in the educational process. Textbooks, teaching materials, syllabi, and electronic resources have been prepared for all courses. The university provides access to international scientific databases such as Scopus and Web of Science.

The curriculum has been developed taking into account the recommendations of employers, research institutes, and healthcare organizations. The program includes practice-oriented courses such as: "Identification of Microorganisms Using Modern Methods," "Improvement of Industrially Significant Producers," "Isolation and Application of Industrial Strains," and "Methods for Determining Antimicrobial Activity." (Self-Assessment Report).

There is a student clinic on the university campus. The "Student House" dormitory, with 220 beds, is available for student housing.

Over the past 5 years, 15 students have graduated with a degree in "Microbiology." Graduate employment rates are regularly analyzed in collaboration with the National Observatory of the Labor Market and Social Protection. Work is also underway to establish an alumni network to strengthen ties between the university and its graduates.

Interviews with master's students revealed that they actively participate in scientific conferences and have publications in other journals.

When meeting with graduates of this program, it became clear that they continue their careers in the fields of education, scientific research, healthcare, pharmaceuticals, environmental protection, biotechnology, and nanobiotechnology. Some of them work at research centers and laboratories abroad.

The university regularly conducts student surveys to assess satisfaction with the educational process. According to the survey results, master's students in the "Microbiology" program expressed 100% satisfaction with the course content, the professionalism of the instructors, and the teaching methods.

Level of compliance with Standard 2 – Full compliance

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

Evidence and Analysis

The Master's program in the specialization "Microbiology" at BSU is designed in accordance with the principles of student-centered learning, and the educational process is integrated with scientific research, laboratory work, interactive teaching methods, and international experience programs.

The student-centered learning approach, which meets the international requirements defined by the Bologna Process and the Standards and Guidelines for Quality Assurance in the European Higher Education Area (EHEA), implies that teaching, learning, and assessment processes in higher education institutions should

be based on the principles of transparency, personalization, and collaboration. The main pedagogical principle applied in teaching the “Microbiology” specialization is a deliberate shift in the teacher’s role from the traditional position of a mere “transmitter of knowledge” to that of a learning facilitator and academic mentor who responsibly encourages students to actively and independently acquire knowledge, skills, and competencies. Laboratory assignments and practical classes are conducted in accordance with the requirements of the "Microbiology" specialization and are based on the application of a wide range of experimental methods. Within this framework, methods such as the cultivation and identification of microorganisms, the determination of their physiological and biochemical characteristics, and the preparation of laboratory specimens are actively utilized. (Self-assessment report).

Students who are having difficulty meeting the academic requirements of the "Microbiology" specialization are provided with appropriate support services. In this context, in accordance with the aforementioned rules of the credit-based education system, students are given the opportunity to participate in the summer semester. The objectives of such participation are to fulfill academic obligations, earn credits for courses taking prerequisites into account, and improve grades in courses already successfully completed. Master’s students with academic deficiencies are provided with the necessary conditions to retake the relevant courses. Students who have not achieved a passing grade in a course are given the opportunity to retake the exam upon payment of a fee not exceeding 25% of the established course cost. (Self-assessment report).

The criteria for assessing learning outcomes in the “Microbiology” specialization are established in accordance with the principles of transparency and objectivity and are applied fairly to all students. As part of the assessment system, students are provided in advance with detailed information about the assessment criteria and assignment requirements, which allows them to organize their learning process in a more focused manner. Assessment takes various forms, including colloquia, independent assignments, written exams, tests, project work, lab reports, and oral discussions. Information on assessment criteria is specified by instructors in the course syllabus. This system increases student motivation, effectively supports their academic and professional training, and ultimately contributes to improving the quality of education in the “Microbiology” specialization.

The assessment process is governed by the Regulations on the Assessment of Students Studying Under the Credit System, approved by Order No. 1060 of the Ministry of Education dated September 11, 2008, as well as the aforementioned rules for organizing the credit-based education system. The assessment of master’s students’ learning outcomes is conducted during seminars, as well as through colloquia and individual assignments on a 10-point scale. Colloquia may be conducted in written, oral, or project-based formats. The final assessment of learning is carried out through a written exam at the end of the semester. On the exam, a master’s student can earn a maximum of 50 points, to which are added the points for exam eligibility accumulated during the semester, for a total of up to 100 points.

During the semester, two colloquia are held for each course, each graded on a 10-point scale. If a master's student fails to attend a colloquium without a valid reason, they receive 0 points. Independent assignments are completed in accordance with the instructor's guidelines; each is worth 1 point, with a maximum of 10 points.

The grading policy is based on the following principles: Transparency—assessment criteria are specified in advance in the syllabus; Consistency—the same standards are applied to all courses and groups; Objectivity—grading is based on specific assignments and results; Fairness—all students are graded according to uniform rules.

Information about the grading system is communicated to students through syllabi, the university's LMS platform, explanations from instructors during the first class, and consultations with academic advisors.

To ensure fairness, mitigating circumstances (illness, family issues, emergencies) are taken into account. Students who miss an exam for a valid reason may retake it once before the start of the next semester at no additional cost. If students disagree with their exam results, they may file an appeal. By order of the BSU Rector, an Examination Committee and an Appeals Commission are established during the exam session to review appeals. Appeals must be submitted in writing within two days of the exam results being announced. The commission's decision is final and is approved by the university rector. (Self-assessment report).

Anonymous surveys are regularly conducted among students in the "Microbiology" specialization. These surveys evaluate course content, teaching methods, the quality of instructional materials, the effectiveness of laboratory sessions, academic workload, and access to library and electronic resources. The results are analyzed and discussed at department and faculty academic council meetings. Based on this data, changes are made to teaching methods, and the interactivity of lectures and seminars is enhanced.

Experts have determined that academic mobility exists, which is regulated by the rules of the credit system. Students can earn credits at other universities, including partner universities abroad. The total number of credits earned at other institutions must not exceed 30% of the total program volume.

In accordance with the requirements of the ECTS system and the Bologna Declaration, BSU ensures students the right to study at both domestic and foreign universities. A special commission is established by order of the rector to recognize and determine the equivalence of credits. When recognizing credits, special attention is paid to the number of credits, the course content, and learning outcomes.

Best practice: The administration of this university, its structural units, the dean's office, departments, and faculty members promote student-oriented and student-centered approaches, as well as inclusivity, while actively encouraging feedback.

Level of compliance with Standard 3 – Full compliance

Standard 4. Student Admission, Academic Performance, Recognition, and Certification

Evidence and Analysis

The admission process for the Master's program in the specialization "Microbiology" at BSU is carried out in accordance with the current legislative framework of the Republic of Azerbaijan, including the Law "On Education," relevant resolutions of the Cabinet of Ministers on the content and organization of higher education, as well as the admission rules established by the State Examination Center (hereinafter – SEC). All stages of the admission process are regulated by a unified legal and regulatory framework and are based on the principles of equal opportunities for candidates, objective assessment, and transparent selection. Admission rules are approved annually by the SEC and published in the public domain. Concurrently, detailed information is posted on the official website of BSU, on the faculty's information platforms, and on social media accounts. The availability of this information allows prospective applicants to make informed decisions when choosing a specialization. Applicants' results are recorded in the GEC electronic system, and allocation to higher education institutions is based on the scores earned, which guarantees the absence of subjective interference in the selection process (Appendix 21. Self-Assessment Report).

The annual admission plan for this specialization is formulated based on an agreement between the Ministry of Education and Science and BSU, ensuring the transparent and open implementation of the admission policy. The availability of the necessary material and technical resources for the "Microbiology" specialization at the Faculty of Biology—including laboratories, equipment, and computing resources—combined with the high scientific qualifications of the faculty and their active participation in scientific research, is a key factor in creating a high-quality academic environment for students. Over the past 5 years, 19 students have been admitted to the "Microbiology" specialization. The enrollment rate according to the admission plan was 100% annually. (Self-assessment report).

Foreign citizens applying to higher education institutions in the country submit an electronic application through the "Electronic Document Submission" subsystem of the Centralized Information System of Education (hereinafter referred to as CISO) of the Ministry of Science and Education (MSE), attaching scanned copies of the required documents. Each application is registered in the CIS, and applicants can track the status of their application through a personal account created for international students. To further simplify this process and expand opportunities for international applicants, a centralized electronic application system was launched on the portal.edu.az platform, which streamlines the document submission process and increases the transparency of admission procedures. Foreign citizens can study at BSU through five different admission channels: 1. Admission of international students based on an agreement between BSU and an individual; 2. Admission of international students through an intergovernmental scholarship program; 3. Exchange programs; 4. Admission of international students through exams

organized by the State Examination Center of the Republic of Azerbaijan; 5. Admission of international students through transfer from other higher education institutions. (Self-assessment report).

Throughout the educational process, students' academic performance is systematically monitored and analyzed. Each master's student's registered courses, accumulated credits, exam results, and overall academic performance metrics are recorded and stored in the university's internal electronic information system. Academic advisors regularly inform students of their academic performance, and appropriate support is provided to students with low academic performance. (Self-Assessment Report).

The recognition of qualifications and learning outcomes obtained by individuals who have studied abroad is considered an important component of the mechanism for ensuring the quality of higher education and international academic mobility in Azerbaijan. This process is carried out by the Azerbaijan Agency for Quality Assurance in Education (AQAE) and ensures the official recognition of students' academic achievements. The recognition of qualifications creates the necessary legal framework for both continuing education within the country and integration into the labor market, while simultaneously promoting student academic mobility and supporting individual educational trajectories. (Self-Assessment Report).

At BSU, procedures related to the transfer of students between higher education institutions, fields of study, or forms of study (transfer) (Appendix 22. Self-Assessment Report), reinstatement to a higher education institution (Appendix 23. Self-Assessment Report), as well as temporary suspension of studies (academic leave) (Appendix 24. Self-Assessment Report), are governed by the "Rules for the Transfer of Students Between Higher Education Institutions, Fields of Study, and Forms of Study, Their Dismissal and Reinstatement in Higher Education Institutions, as well as the Temporary Suspension of Studies (Granting of Academic Leave) at the Bachelor's (including Basic Medical Education) and Master's Levels," approved by Decision No. KQ-02 of the Board of the Ministry of Science and Education dated February 21, 2024. These rules constitute the legal basis for implementing the aforementioned administrative processes at the bachelor's and master's levels. The submission and review of student applications under these procedures are fully digitized and carried out through the relevant subsystem of the Ministry's CISO. Through the CISO subsystem, students select the necessary procedure (transfer, reinstatement, academic leave, or return from academic leave), fill out, and submit an electronic application. Individuals who have been expelled from a higher education institution are entitled to apply for reinstatement only at the institution where they previously studied, within 15 years of the date of expulsion. Academic leave is granted to students in the following cases and for the following periods: upon conscription for active military service; due to family circumstances (in cases determined by the Academic Council of the educational institution)—for a period of up to two years; due to health reasons—for the period specified in the certificate (or decision) of the medical advisory (or expert) commission, but not

exceeding two years; when taking social leave—for the period established by law; when studying abroad on a fee-paying basis—for a period of up to one year. (Self-assessment report).

The academic and methodological support provided to master's students in the "Microbiology" specialization facilitates their effective integration into the research process, eases their adaptation to the academic environment, and ensures an optimal balance between personal and academic development. Each master's student is assigned a research advisor (Appendix 25. Self-Assessment Report), who systematically monitors all stages of the student's research activity—including research planning, implementation, and systematization of results—and conducts regular consultations. The role of academic advisor is typically fulfilled by members of the university's faculty who hold the appropriate academic title or degree, or by specialists from other institutions who meet these requirements; in this context, a single academic advisor is permitted to supervise no more than five master's students. In cases where the topic of the master's research is interdisciplinary in nature, an additional academic advisor may be appointed alongside the primary academic advisor. The appointment of a supervisor is formalized by an order of the rector in accordance with the "Rules on the Content, Organization of Master's Education, and Awarding of the 'Master's' Degree," approved by Resolution No. 88 of the Cabinet of Ministers of the Republic of Azerbaijan dated May 12, 2010. (Self-assessment report).

The survey revealed that individuals who successfully complete the curriculum prescribed for the master's level of higher education receive a master's degree. The main requirements for the award of this academic degree are the full completion of credits in accordance with the curriculum, the preparation of a master's thesis, and its successful defense before a specialized examination committee. Upon a positive evaluation of the defense, the graduate is awarded the academic and professional degree of "Master." This degree provides graduates with both academic and legal grounds to continue scientific research, engage in teaching at higher education institutions, and pursue doctoral studies.

At BSU, the procedure for issuing diplomas to graduates (Appendix 26. Self-Assessment Report) is carried out in accordance with the "Samples of State Documents on Education at the Bachelor's and Master's Levels of Higher Education and the Rules for Their Issuance," approved by Resolution No. 82 of the Cabinet of Ministers of the Republic of Azerbaijan dated April 29, 2010. These rules govern the forms and mechanisms for issuing state documents awarded at the bachelor's and master's levels of higher education. Diploma forms are supplied by the Ministry of National Education to all higher education institutions in the country, regardless of their administrative affiliation or ownership structure, in proportion to the number of graduates. Diplomas, together with their appendices or duplicates, are presented to graduates in person. In cases where personal presentation is not possible, the documents are handed over to the graduate's legal representative or another authorized person acting under a power of attorney. (Self-assessment report).

Cooperation with employers is of fundamental importance for strengthening the practical orientation of higher education programs and aligning education with the modern demands of the labor market. To improve the quality of education, the creation of systematic mechanisms for interaction between the university and employer organizations contributes to the development of students' professional competencies, their adaptation to the real work environment, and improved graduate employment rates. Information sessions, job fairs, and career events organized with the participation of employers provide students with valuable opportunities to explore potential fields of employment and establish professional contacts. (Self-Assessment Report).

To improve the quality of instruction in the "Microbiology" specialization, six course curricula have been revised over the past five years based on feedback and suggestions from employers (Appendix 27, Self-Assessment Report).

Furthermore, interviews with graduates and employers revealed that graduates work in this field not only in education and science but also in industry, making this specialization more in demand.

Level of compliance with Standard 4 – Full compliance

Standard 5. Faculty

Evidence and Analysis

The personnel policy covers hiring processes in accordance with the Labor Code of the Republic of Azerbaijan, the Law of the Republic of Azerbaijan "On Education," the Charter of BSU, and other relevant regulatory and legal acts. At BSU, the recruitment of academic staff is carried out in accordance with the "Regulations on the Appointment of Faculty and Department Chairs in Higher Education Institutions," approved by Order No. 401 of the Ministry of Education dated August 7, 1996. This regulatory document defines the basic framework for the selection of academic and teaching staff. In accordance with these rules, the positions of professor, associate professor, senior lecturer, and lecturer at the university are, as a rule, filled through a competitive selection process for a term of five (5) years to ensure transparency and objectivity. Citizens of the Republic of Azerbaijan, as well as Azerbaijanis residing abroad, are eligible to participate in the competition provided they possess high professional qualifications, proven achievements in scientific or professional activities, the necessary scientific, pedagogical, or industry experience, as well as relevant academic degrees and titles. The qualification requirements established for candidates for academic staff positions are aimed at achieving the strategic goals of strengthening the university's scientific and -pedagogical potential and improving the overall quality of teaching. A preliminary review of competition documents is conducted at a department meeting chaired by the department chair or his or her authorized deputy. During the meeting, the candidates' scientific and pedagogical activities are evaluated, and a

preliminary decision is made. Then, a reasoned conclusion regarding each candidate is submitted to the faculty's academic council for review to ensure objectivity and transparency. Denial of admission to the competition is possible only on two grounds: the candidate's failure to meet the requirements of the advertised position or late submission of the application. Self-assessment report).

The results of scientific research are integrated into the educational process. For example, in teaching the courses "Biology of Actinomycetes," "Biology of Yeasts," and "Physiology of Microorganisms," the results of the research project "Screening of Microorganisms from Natural Sources and Study of Their Physiological, Physicochemical, Molecular-Genetic, and Biotechnological Properties" are actively utilized.

Faculty members who publish articles in the internationally recognized scientometric databases Scopus and Web of Science, particularly in journals in the top quartiles (Q1–Q4), receive remuneration in accordance with established incentive programs. This was revealed during interviews with the department's faculty. 140 scientific and educational institutions in the country have received unlimited access to Cambridge University Press journals, which significantly improves the information support for educational and scientific activities.

BSU regularly implements professional development programs to ensure the continuous professional development of academic staff. The Department of Molecular Biology and Biotechnology at BSU holds scientific seminars in accordance with a pre-approved schedule, in which master's students also participate.

At BSU, the annual teaching load for academic staff is regulated by the Decree of the Cabinet of Ministers of the Republic of Azerbaijan dated November 24, 2010, "On Establishing Standards for the Teaching Load of Teaching Staff at Educational Institutions." According to this decree, the annual teaching load for full-time faculty members is 500 hours, of which at least 60% must consist of classroom instruction (lectures, seminars, laboratory, and practical sessions). For part-time faculty, the annual workload is 250 hours, of which at least 150 hours must be classroom instruction. Plans are developed in accordance with the "Rules for the Organization of Research and Scientific-Methodological Activities in Higher Education Institutions," approved by the Board of the Ministry of Science and Education on September 3, 2024, and are approved by the department chair. The individual plan includes teaching load, research activities, scientific and methodological work, as well as public and organizational-educational activities. At the end of the academic year, the instructor submits a report on the implementation of the plan, based on which the effectiveness of their activities is evaluated. The evaluation of faculty members is based on ensuring a balance between teaching, research, pedagogical, organizational, and educational activities. The effectiveness of teaching is assessed based on criteria such as student feedback, the quality of teaching materials, the use of innovative teaching methods, and students' academic achievements. Research activity is evaluated based on the quantity and quality of publications, participation

in international conferences, involvement in projects, and grants received. (Self-assessment report).

The assessment of faculty competence is conducted systematically with the aim of continuously improving the quality of education. One of the mechanisms is the conduct of open classes. These are evaluated in accordance with criteria approved by the Academic Council of the Faculty of Biology. The results are discussed at department and faculty academic council meetings, where the pedagogical approaches used are analyzed and recommendations for their improvement are developed. (Self-assessment report).

During interviews with faculty members at BSU, a healthy psychological environment, the protection of students' rights, and the regulation of pedagogical relationships within an ethical framework are governed by the "Rules of Ethical Conduct for Educators," approved by a decision of the Board of the Ministry of Science and Education on May 15, 2024. According to these rules, faculty members must be guided by the principles of fairness, objectivity, responsibility, and transparency; treat students with respect; avoid discrimination; and ensure an inclusive educational environment and equal opportunities, as confirmed during interviews with the dean's office, department leadership, as well as faculty, master's students, and alumni.

Best Practices:

The goal of this department is to recruit talented, experienced, and actively engaged researchers while maintaining a fair, transparent, and regulations-based personnel policy at the university.

Competitive selection procedures conducted at higher education institutions allow not only internal university staff but also candidates from external organizations to participate, including research institutions such as the Institute of Microbiology of the National Academy of Sciences of Azerbaijan. This indicates that a close link between education and science has been established, and the regulatory framework promotes a balanced distribution of teaching and research activities, improved teaching quality , and effective management of faculty workloads.

Level of compliance with Standard 5 – Full compliance

Standard 6. Learning Resources and Student Support

Evidence and Analysis

The Master's program in Microbiology at BSU is equipped with the necessary material and technical infrastructure and information resources that facilitate the development of students' theoretical knowledge and practical skills. The Department of Molecular Biology and Biotechnology forms the core of this infrastructure. The department's classrooms, specialized research laboratories, and lecture halls equipped with modern information and communication technology

(computers, projectors, and interactive whiteboards) ensure that the educational process meets contemporary requirements. The effectiveness of master's students' research activities is also enhanced by the capabilities of the microbiology and virology research laboratory, which operates under the University's Center for Advanced Research, Development, and Innovation. This was confirmed during a visual inspection by experts from this cluster. (Self-assessment report).

It was also confirmed during the on-site inspection by members of the expert commission that the Faculty of Biology has a solid foundation for organizing the educational process. In total, laboratories and classrooms with a total area of 2,343.2 m², including 26 laboratories and 31 classrooms, provide the necessary conditions for an effective educational process. To ensure the quality of education in the "Microbiology" master's program, priority is given not only to theoretical knowledge but also to extensive practical and laboratory training. These sessions are conducted in laboratories equipped with modern instruments and equipment. It should be noted that students have access to the university's research centers and laboratories for conducting microbiological research and experiments.

Master's students majoring in "Microbiology" can develop applied research skills and conduct experiments while working with modern instruments in active laboratories. Through practical assignments, students study real-world microbiological processes and perform activities such as the identification and analysis of microorganisms, the study of cultivation methods, and the investigation of the effects of various physical and chemical factors on the growth and development of microorganisms. To ensure the quality of education and student safety, laboratory safety regulations are strictly observed. To this end, BSU has developed and officially approved special occupational health and safety instructions for diagnostic laboratory technicians, laboratory staff, and laboratory assistants working in laboratories conducting research in physics, chemistry, and biology, ensuring compliance with high safety standards (Appendix 31 of the Self-Assessment Report).

The laboratory staff of the Faculty of Biology possess qualification levels corresponding to the requirements of the "Microbiology" specialization. In total, the faculty employs 19 laboratory technicians who have been trained in accordance with modern standards in this field and regularly upgrade their qualifications in microbiological research methodology and laboratory safety protocols.

The university's scientific library operates in accordance with the legislation of the Republic of Azerbaijan "On Librarianship" and serves as one of the key pillars of scientific and informational support for students majoring in "Microbiology." The library's electronic catalogs, access to specialized databases, extensive collections of scientific literature, and modern reading rooms create the necessary conditions for master's students to conduct high-level scientific research. (Self-assessment report).

Upon visual inspection, the Scientific Library serves users through specialized reading rooms, circulation departments, and an electronic library system. The library's collection comprises a total of 2,166,583 copies of rare and valuable

publications. The Scientific Library's eleven reading rooms can simultaneously accommodate over 500 readers. Access to electronic information resources is provided through the official BSU website and made available to users via the electronic library, electronic catalog, and full-text databases. Currently, the electronic library provides open access to more than 4,500 electronic resources in Azerbaijani, Russian, and English, corresponding to the university's educational programs. A significant portion of the digital library's materials consists of textbooks, study guides, and other academic and methodological publications prepared by BSU faculty. The university's infrastructure includes the "Book House," an open-access space for students and staff. In addition to educational literature, a wide selection of fiction and academic publications is available here. Students can order all necessary textbooks and educational materials through the "Book House."

It turned out that students have access to international electronic scientific databases. These resources provide master's students with extensive opportunities to conduct scientific research, track current scientific trends, and prepare research papers at a high academic level. Information support through digital infrastructure makes education in the field of microbiology more flexible and accessible.

During interviews with students in this program at the faculty, department, and throughout BSU, a positive moral and psychological atmosphere is observed for learning and conducting lectures, practical, and laboratory classes. The students described how the department's faculty treats them objectively and provides every possible support to help them achieve their goals in conducting research and writing publications.

Additionally, during separate conversations with faculty members, graduates, and master's students, it was confirmed that inclusive education is practiced not only for individuals with disabilities but also for those with hearing or visual impairments, as well as those with speech disorders, etc.

Thus, the educational environment created at BSU for the "Microbiology" specialization fully complies with the standards of research-oriented higher education. The university's material and technical capabilities, financial resources, laboratory and educational infrastructure, as well as library and information systems complement one another and ensure the high-quality implementation of the educational program. Such an integrated system contributes to the comprehensive development of master's students' theoretical knowledge, practical skills, and research competencies.

Level of compliance with Standard 6 – full compliance

Standard 7. Public information

Information is provided to students, alumni, and other stakeholders in accordance with the University's principles of transparency, informed decision-making, accessibility, and quality assurance. To this end, comprehensive, up-to-date,

and objective information on each educational program is disseminated through the University's official website, its official social media pages (LinkedIn, Facebook, Instagram), its official YouTube channel, and various informational brochures. To develop and maintain effective relations with the media and the public, as well as to cover changes in the educational process, research activities, and the social life of the University, BSU has a Department of Public Relations and Information. The Department coordinates the interaction of the University's structural units with the media and the public, ensuring the prompt and continuous dissemination of information about the University's development, ongoing events, and research results. Student life is featured in a separate section of the website. Information about student clubs and organizations, as well as various social and cultural events held at both the faculty and university levels, serves an important informational function, contributing to the social integration of students and encouraging their active participation in university life. (Self-assessment report).

During interviews with the department's faculty, it was determined that career guidance activities are conducted in schools and universities, and open house events are held for high school and college students who may apply for the bachelor's program, as well as for prospective graduates entering the master's program in this field.

BSU Open House events, organized for prospective applicants, are aimed at providing the public with an open and transparent presentation of the University's educational, scientific, and social environment, as well as supporting an informed choice of academic program. As it turns out, during these events, prospective applicants receive information about the activities of the faculties, the content of educational programs, admission requirements, laboratory and research infrastructure, the scientific potential of the faculty, as well as the social and academic aspects of student life.

To keep the public informed about the University's development, scientific events, innovations in the educational process, and the achievements of students and faculty, Baku State University publishes the newspaper "Baku University." The newspaper covers issues related to the educational process, the development and availability of textbooks and teaching materials, research activities, the work of laboratories and research centers, library services, social initiatives, international relations, and student life. BSU TV also serves as an authentic educational environment where students majoring in media and communications develop practical skills. Through this platform, students can gain hands-on experience in professional activities such as video production, editing, reporting, news anchoring, and editorial work. The Baku State University Publishing House ensures the high-quality preparation and publication of textbooks, teaching materials, methodological guides, scientific journals, and monographs; the publishing house provides students with access to reliable and scientifically sound information resources. In the field of public relations, BSU has entered into cooperation agreements with television channels, including Khazar TV, ARB TV, and other media organizations. (Self-Assessment Report).

Such cooperation agreements allow the University to systematically and purposefully utilize media resources, thereby increasing the overall effectiveness of its communication policy.

Areas for improvement: supplement the university's website with comprehensive information about the educational program; research work and achievements, publications, and student work within this program, as well as update it with new and relevant information.

Level of compliance with Standard 7 – full compliance

CHAPTER 3
CONCLUSION

Comments and areas for improvement from the expert group based on the audit results:

Standard 1. Policy on quality assurance of the educational program and academic integrity – Full compliance

Standard 2. Curriculum Development and Approval, Information Management – Full Compliance

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

Standard 4. Admissions, Academic Performance, Recognition, and Certification – Full Compliance

Standard 5. Faculty – Full compliance.

Standard 6. Learning Resources and Student Support – Full Compliance

Standard 7. Public Information – Full Compliance

Areas for improvement: Add complete information about the educational program to the university's website; include details on research achievements, publications, and student work related to this program, and update the site with new, relevant information.

Appendix 1

PROGRAM
of the external audit by the IQAA expert group at Baku State University for program accreditation March12-13, 2026

Time	Event	Participants	Location
	Day 1: March 12, 2026		
8:45	Arrival at the university	L, EG, C	EG office
9:00-10:00	Briefing, discussion of organizational issues	L, EG, C	EG office Conference link
10:00-10:45	Interview with the University Rector	L, EG, C, Rector	Rector's Office Conference link
10:45-11:00	Exchange of views among members of the external expert group	L, EG, C	EG Office Conference link
11:00-11:45	Interview with the Vice-Rectors of the University	L, EG, C, Vice-Rectors	Rector's Office Link for the conference
11:45-12:00	Exchange of views among members of the external expert group	L, EG, C	EG office Conference link
12:00-12:45	Interviews with heads of structural divisions	L, EG, C, RSP	EG office Conference link
12:45-13:00	Exchange of views among members of the external expert group	L, EG, C	EG Office Conference link
13:00-14:00	Lunch	L, EG, C	
14:00-14:45	Interview with deans, department heads	L, EG, C, Dean of the faculty, Head of the department	EG office Link for the conference
14:45-15:00	Exchange of views among members of the external expert group	L, EG, C	EG Office Conference link
15:00-15:45	Interview with faculty members of the department on the accredited educational program	L, EG, C, teaching staff of the department	EG office Link for the conference
15:45-16:00	Exchange of views among members of the external expert group	L, EG, C	EG office Link for the conference
16:00-16:45	Interview with employers	L, EG, C, Employers	EG Office Conference link
16:45-17:00	Exchange of views among members of the external expert group	L, EG, C	EG Office Conference link
17:00-18:30	Visual inspection of material, technical, and educational laboratory facilities	L, EG, Heads departments	Academic building Conference link

18:30-18:45	Exchange of views among members of the external expert group	L, EG, C	EG office Conference link
Day 2: March 13, 2026			
8:45	Arrival at the University	L, EG, C	Academic Building
9:00-11:00	Academic and scientific support for master's students. Selective attendance at academic exams and practical training bases	L, EG	Academic building Practical training bases
11:00-11:45	Interviews with students	L, EG, C, Students	EG office Conference link
11:45-12:00	Exchange of views among members of the external expert group	L, EG, C	EG Office Conference link
12:00-13:00	Invitation to department heads at the request of experts.	L, EG, C, department heads	EG Office
13:00-14:00	Lunch	L, EG, C	
14:00-16:00	Preparation of external audit reports. Review of documentation on the accredited educational program. Invitation of individual representatives of the department and structural units at the request of experts.	L, EG, Head of Department, HSU	EG office Link for the conference
16:00-17:00	Exchange of views among members of the external expert group. Preliminary results of the external audit	L, EG, C	EG office Link for the conference
17:00-17:30	Meeting with management to present preliminary results of the external audit	L, EG, C	Rector's Office Conference link

Note: L – Leader of EG, EG – Expert Group, C – Group Coordinator, HSU – Heads of Structural Units

Appendix 3

LIST OF DOCUMENTS ADDITIONALLY REVIEWED AT THE UNIVERSITY

1. Curriculum
2. Working curriculum
3. Syllabi for disciplines (courses)
4. Internal policies and quality assurance system
5. Materials from collegial bodies governing the educational program
6. Materials for systematic monitoring of student performance
7. Student Theses