

## **Accreditation Report**

Programme Accreditation of

**Andijan State University**  
**named after Zahiriddin Muhammad Bobur**  
Andijan City, Uzbekistan

**“Physics” – Bachelor’s**

**“Physics of Semiconductors” – Master’s**

**“Chemistry” – Bachelor’s/Master’s**

**“Information Security” – Bachelor’s/Master’s**

**“Biology” – Bachelor’s/Master’s**

**“Mathematics” – Bachelor’s /Master’s**

**“Economics” – Bachelor’s**

## **I Procedure**

**Date of contract:** 10 April 2025

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**Attendance by ACQUIN office:** Dr. Michael Mayer

**Accreditation decision:** 01. December 2025

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The **Assessment Report** of the peer-review experts is **based on** the self-assessment report of the Higher Education Institution (HEI) and extensive discussions with the HEI management, deans and/or heads of the departments, heads of study programme(s), lecturers, staff representatives, students, and alumni.

The basis of the **Assessment Criteria** is part 1 of the “Standards and Guidelines for Quality Assurance in the European Higher Education Area” (ESG) in the current official version. At the same time the national context, particularly the national regulations regarding the establishment of study programmes, are taken into account.

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## **II Introduction**

The experts would like to thank the representatives of the Andijan State University as well as students that they have taken part in the discussions and willingly shared information and their views during the site visit. The discussions are valuable not only for the assessment of the institution, but also for a better understanding of the legal and sociocultural context of the local higher education system.

Evaluation basis for the peer-review experts is the self-assessment report of the Andijan State University as well as intensive discussions during the site visit with the HEI management, deans and/or heads of the departments, heads of the study programmes, study programmes coordinators, teachers, lecturers, administrative staff, students, and graduates.

Main objective of the accreditation procedure is to assess the quality of the study programmes and compliance with the "Standards and Guidelines for Quality Assurance in the European Higher Education Area" (ESG). The ESG standards are applied as main assessment criteria in the international accreditation procedure. In addition, the respective country-specific criteria and standards are taken into account.

A group of experts was set up, which ensured that all areas relevant to the accreditation procedure (e.g. legal, structural, social etc. aspects) as well as the ESG are considered. The peer-review experts include professors, representatives of the professional practice and the student representative. A certificate with the ACQUIN seal is awarded upon accreditation of the study programmes.

### **1.1 Short profile of Andijan State University named after Zahiriddin Muhammad Babur**

The main goal of the university is to train comprehensively qualified specialists and scientific and pedagogical personnel who value their homeland, feel responsible for the state and society, work conscientiously and honestly for the future of the country, respect national and universal values, strictly adhere to the law, and are highly qualified and competitive in the fields of international education, higher education, and the modern economy.

Andijan State University has signed bilateral cooperation agreements, memorandums of understanding, and contracts with 78 higher education institutions in 17 countries.

Our university is equipped with modern research and educational laboratories, where highly qualified and experienced professors and teachers not only conduct scientific research, but also teach their knowledge and skills to their students based on the traditional "teacher-stu-

dent" approach. In particular, the Laboratory of Commodity Chemistry and Traditional Medicine, the Laboratory of Medicinal Leech Reproduction, the Laboratory of Renewable Energy Sources, and the Robotics Laboratories are among them.

Andijan State University has a Certificate of State Accreditation, which guarantees graduates the right to receive state-standard educational documents in accordance with the appendix to this certificate, based on the field of study (specialty), program and level of education)

## 2 General information on the study programmes

### 2.1 Physics Education – Bachelor's

Location of the study program or HEI site(s)/location where the program is provided	129 st.Universitet, Andijan city, Republic of Uzbekistan, 170100,
Faculty/Department	Faculty of Physics-Mathematics-IT
Academic Degree	Bachelor's degree
Date or planned date of introduction	05.08.1955
Status last national accreditation (incl. result) Status last int. accreditation (incl. result)	04.08.2021 got national accreditation for 5 years
Subject field	Physics
Regular study duration	Bachelor's degree 8 semesters
Number of (ECTS) credits	Bachelor's degree 240 credits,
Enrollment period(s)	Fall semester
Frequency of the offered program	Every semester
Capacity per year	Bachelor's students 100
Number of students currently enrolled	Bachelor's students 177
Average number of graduates per year	Bachelor's graduates 44
Target group(s)	Uzbek and international high school graduates
Admission requirements	<a href="https://adu.uz/uz/menu/main/entrant/bachelority/admission_order/48">https://adu.uz/uz/menu/main/entrant/bachelority/admission_order/48</a>
Tuition fees (per semester)	Bachelor's degree 4 255 000 UZS (Uzbekistani sum)
Type of studies	Full time

**2.2 Physics of semiconductors – Master's**

Location of the study program or HEI site(s)/location where the program is provided	Andijan state university, 129 st.Universitet, Andijan city, Republic of Uzbekistan, 170100
Faculty/Department	Physics and technology/ Condensed matter physics
Academic Degree	Physics of semiconductors Master
Date or planned date of introduction	03.09.2021
Status last national accreditation (incl. result) Status last int. accreditation (incl. result)	04.08.2021 got national accreditation for 5 years no
Subject field	Physics of semiconductors
Regular study duration	4 semesters or 2 years
Number of (ECTS) credits	120
Enrollment period(s)	Fall semester
Frequency of the offered program	Every semester
Capacity per year	10
Number of students currently enrolled	6
Average number of graduates per year	5 (2021-2024)
Target group(s)	Uzbek and international graduates
Admission requirements	Based on a competitive process involving comprehensive testing or entrance exams
Tuition fees (per semester)	4 932 400 UZS (Uzbekistan sum)
Type of studies	Full time

### 2.3 Chemistry – Bachelor's

Program location or University website/ place of Program Delivery	170100, Republic of Uzbekistan Andijan city Universitet street, Building 129
Faculty/department	Faculty of Chemistry and Biology
Academic degree	Bachelor's degree
Date or planned of implementation	August 5, 1955
Latest National Accreditation Status( including result)	Accredited on August 4, 2021, for 5 years
Subject Area	Chemistry
Duration of full-time study	Bachelor's degree 8 semesters Master's degree 4 semesters
Number of (ESG) Credits	Bachelor's degree 240 ECTS, Master's degree 120 ECTS
Enrollment Period(s)	Fall Term
Program Frequency	Annual Semesters
Annual Capacity	130
Currently Enrolled Students	597
Average number of graduates per year	121
Target group(s)	Uzbek and international high school graduates
Admission Requirements	<a href="https://ASU.uz/uz/menu/main/entrant/bachelority/admission_order/48">https://ASU.uz/uz/menu/main/entrant/bachelority/admission_order/48</a>
Tuition Fees (per semester)	3 820500 UZS
Mode of study	Full-Time

**2.4 Chemistry – Master's**

Program location or University website/ place of Program Delivery	170100, Republic of Uzbekistan Andijan city Universitet street, Building 129
Faculty/department	Faculty of Chemistry and Biology
Academic degree	Master's degree
Date or planned of implementation	August 5, 1955
Latest National Accreditation Status( including result)	Accredited on August 4, 2021, for 5 years
Subject Area	Chemistry
Duration of full-time study	4 semesters
Number of (ESG) Credits	120 ECTS
Enrollment Period(s)	Fall Term
Program Frequency	Annual Semesters
Annual Capacity	86
Currently Enrolled Students	86
Average number of graduates per year	19
Target group(s)	Uzbek and international high school graduates
Admission Requirements	<a href="https://ASU.uz/uz/menu/main/entrant/bachelority/admission_order/48">https://ASU.uz/uz/menu/main/entrant/bachelority/admission_order/48</a>
Tuition Fees (per semester)	4 484000 UZS
Mode of study	Full-Time

**2.5 Information Security – Bachelor’s**

Program location or University website/ place of Program Delivery	170100, Republic of Uzbekistan Andijan city Universitet street, Building 129
Faculty/department	Faculty of Physics-Mathematics-IT
Academic degree	Bachelor’s degree/ Master’s degree
Date of implementation	August 5,1955
Latest National Accredation Status( includ- ing result)	Accredited on August 4, 2021, for 5 years
Subject Area	IT
Duration of full-time study	8 semesters
Number of (ESG) Credits	240 ECTS
Enrollment Period(s)	Fall Term
Program Frequency	Annual Semesters
Annual Capacity	100
Currently Enrolled Students	21
Average number of graduates per year	Bachelors Graduates: -
Target group(s)	Uzbek and international high school graduates
Admission Requirements	<a href="https://ASU.uz/uz/menu/main/entrant/bachelority/admission_order/48">https://ASU.uz/uz/menu/main/entrant/bachelority/admission_order/48</a>
Tuition Fees (per semester)	4 482 500 UZS (Uzbekistani sum)
Mode of study	Full-Time

## 2.6 Information Security – Master’s

Program location or University website/ place of Program Delivery	170100, Republic of Uzbekistan Andijan city Universitet street, Building 129
Faculty/department	Faculty of Physics-Mathematics-IT
Academic degree	Bachelor’s degree/ Master’s degree
Date or planned of implementation	August 5,1955
Latest National Accredation Status( includ- ing result)	Accredited on August 4, 2021, for 5 years
Subject Area	Chemistry
Duration of full-time study	4 semesters
Number of (ESG) Credits	120 ECTS
Enrollment Period(s)	Fall Term
Program Frequency	Annual Semesters
Annual Capacity	10
Currently Enrolled Students	6
Average number of graduates per year	6
Target group(s)	Uzbek and international high school graduates
Admission Requirements	<a href="https://ASU.uz/uz/menu/main/entrant/bachelority/admission_order/48">https://ASU.uz/uz/menu/main/entrant/bachelority/admission_order/48</a>
Tuition Fees (per semester)	4 932 400 UZS (Uzbekistani sum)
Mode of study	Full-Time

**3.6 Biology – Bachelor's**

Program location or University website/ place of Program Delivery	170100, Republic of Uzbekistan Andijan city Universitet street, Building 129
Faculty/department	Faculty of Chemistry and Biology
Academic degree	Bachelor's degree
Date or planned of implementation	August 5, 1931
Latest National Accreditation Status( including result)	Accredited on August 4, 2021, for 5 years
Subject Area	Biology
Duration of full-time study	Bachelor's degree 8 semesters
Number of (ESG) Credits	Bachelor's degree ECTS,
Enrollment Period(s)	Fall Term
Program Frequency	Annual Semesters
Annual Capacity	200
Currently Enrolled Students	1476
Average number of graduates per year	406
Target group(s)	Uzbek and international high school graduates
Admission Requirements	<a href="https://adu.uz/uz/menu/main/entrant/bachelority/admission_order/48">https://adu.uz/uz/menu/main/entrant/bachelority/admission_order/48</a>
Tuition Fees (per semester)	3,736,000 UZS (Uzbekistan sum)
Mode of study	Full-Time

**2.7 Biology – Master's**

Program location or University website/ place of Program Delivery	170100, Republic of Uzbekistan Andijan city Universitet street, Building 129
Faculty/department	Faculty of Chemistry and Biology
Academic degree	Master's degree
Date or planned of implementation	August 5,1931
Latest National Accredation Status( includ- ing result)	Accredited on August 4, 2021, for 5 years
Subject Area	Biology
Duration of full-time study	Master's degree 4 semesters
Number of (ESG) Credits	Master's degree 120 ECTS
Enrollment Period(s)	Fall Term
Program Frequency	Annual Semesters
Annual Capacity	Master's program 25
Currently Enrolled Students	Master's program 24
Average number of graduates per year	17
Target group(s)	Uzbek and international graduates
Admission Requirements	<a href="https://adu.uz/uz/menu/main/entrant/bachelority/admission_order/48">https://adu.uz/uz/menu/main/entrant/bachelority/admission_order/48</a>
Tuition Fees (per semester)	Master's program – 350,000 UZS (Uzbekistan sum)
Mode of study	Full-Time

**2.8 Mathematics – Bachelor's**

Location of the study program or HEI site(s)/location where the program is provided	129 st.Universitet, Andijan city, Republic of Uzbekistan, 170100,
Faculty/Department	Faculty of Physics-Mathematics-IT
Academic Degree	Bachelor's degree
Date or planned date of introduction	05.08.1955
Status last national accreditation (incl. result) Status last int. accreditation (incl. result)	04.08.2021 got national accreditation for 5 years
Subject field	Mathematics
Regular study duration	8 semesters
Number of (ECTS) credits	240 credits,
Enrollment period(s)	Fall semester
Frequency of the offered program	Every semester
Capacity per year	100
Number of students currently enrolled	597
Average number of graduates per year	148
Target group(s)	
Admission requirements	<a href="https://adu.uz/uz/menu/main/entrant/bachelority/admission_order/48">https://adu.uz/uz/menu/main/entrant/bachelority/admission_order/48</a>
Tuition fees (per semester)	Bachelor's degree 4 255 000 UZS (Uzbekistani sum) Master's degree 4 932 400 UZS (Uzbekistani sum)
Type of studies	Full time

**2.9 Mathematics – Master’s**

Location of the study program or HEI site(s)/location where the program is provided	129 st.Universitet, Andijan city, Republic of Uzbekistan, 170100,
Faculty/Department	Faculty of Physics-Mathematics-IT
Academic Degree	Bachelor’s degree / Master’s degree
Date or planned date of introduction	05.08.1955
Status last national accreditation (incl. result)	04.08.2021 got national accreditation for 5 years
Status last int. accreditation (incl. result)	
Subject field	Mathematics
Regular study duration	4 semesters
Number of (ECTS) credits	120 credits
Enrollment period(s)	Fall semester
Frequency of the offered program	Every semester
Capacity per year	16
Number of students currently enrolled	32
Average number of graduates per year	12
Target group(s)	
Admission requirements	<a href="https://adu.uz/uz/menu/main/entrant/bachelority/admission_order/48">https://adu.uz/uz/menu/main/entrant/bachelority/admission_order/48</a>
Tuition fees (per semester)	Master’s degree 4 932 400 UZS (Uzbekistani sum)
Type of studies	Full time

## 2.10 Economics – Bachelor's

Location of study program and web sites of the university/place that study program is realized	170100, Uzbekistan, Andijan city, street University, 129.
Faculty/chair	Socio-economic faculty
Scientific degree	Bachelor degree
Date of planned	05.08.1955
The last accreditation state (result)	04.08.2021 year It has been taken national accreditation for 4 years.
Subject field	Economics
Regular study period	Bachelor degree 8 semester
(ECTS) number of credits	Bachelor degree 240 kredit,
Registration period	Fall semester
Frequency of the proposed program	Each semester
Annual capacity	Bachelor students 100
Number of currently enrolled students	Bachelor students
Average number of annual graduates	Bachelor's degree graduates
Target group(s)	
Admission requirements	<a href="https://adu.uz/uz/menu/main/entrant/bachelority/admission_order/48">https://adu.uz/uz/menu/main/entrant/bachelority/admission_order/48</a>
Tuition fees (per semester)	Bachelor degree 4 255 000 sum (Uzbek sum)
Study type	Full time

### III Implementation and assessment of the criteria

#### 1 ESG Standard 1.1: Policy for quality assurance

**Institutions should have a policy for quality assurance that is made public and forms part of their strategic management. Internal stakeholders should develop and implement this policy through appropriate structures and processes, while involving external stakeholders.**

##### 1.1 Implementation

Andijan State University's quality assurance policy reflects the university's mission and strategic goals and serves as a practical guide for staff and students at all levels. Quality-oriented principles include a systematic approach that is applied uniformly across all departments and faculties, a commitment to continuous improvement through regular analysis and efficiency gains, active staff participation by both academic and administrative personnel, evidence-based decision making grounded in data analyses, and transparency and accountability toward the public and stakeholders. An internal quality assurance system based on self-evaluation will be established at the faculty and department level, with the opinions of students and graduates systematically collected and analysed. The university aims to contribute to national development by ensuring the quality of education and training specialists with scientific and intellectual potential, and the quality policy provides the foundation for sustainable, transparent, and innovative development. A quality assurance regulation guides actions to monitor and control training quality, including studying compliance with state educational standards and mastery of subjects; forming transparent mechanisms for selecting and hiring qualified teachers and improving their qualifications and professional skills; regularly analysing teaching quality; organizing internal evaluation and addressing shortcomings; examining the compliance of educational processes with regulatory documents and the effective use of the HEMIS system, including timely and complete data entry and proper implementation of the credit-module system; analysing the alignment of qualification requirements, curricula, and programs with professional standards and labour market needs to ensure the training of competitive specialists; forming conclusions about graduates' positions in the labour market, demand for their skills, and the stability of their professional directions; learning to organize lessons based on modern pedagogical and information technologies and controlling the quality of lessons; studying the involvement of qualified sector specialists in teaching through internships; assessing the effectiveness of measures to ensure transparency and objectivity in assessing student knowledge; reviewing whether professors and teachers have improved their qualifications and introduced scientific innovations into the curriculum; analysing the fair distribution of teaching

workloads among faculty members; reviewing the conditions created for students and teachers in the Information Resource Center and the availability of textbooks by subject, and making proposals to management; studying and analysing the organisation of independent learning to meet requirements, including the development of guidelines and ensuring appropriate student workload; and ensuring the introduction of anti-plagiarism measures.

## **1.2 Assessment**

Andijan State University has defined a policy for quality assurance and has established bodies and procedures that address programme design and delivery, student evaluation, and internal review. This shows a growing commitment to the principles of the European Standards and Guidelines.

Andijan State University demonstrates a commitment to delivering quality educational services, guiding staff and students within quality assurance framework. The quality assurance policy tries to reflect the university's mission and strategic goals and serves as a practical guide for staff and students at all levels. A systematic, university-wide approach to quality assurance ensures staff participation and supports evidence-based decision-making, reinforcing transparency and accountability to stakeholders. The QA regulation encompasses comprehensive monitoring of personnel training, compliance with state educational standards, curriculum alignment with professional standards and labour market needs, transparent hiring processes, ongoing analysis of teaching quality, and robust measures against plagiarism, all contributing to a sustainable, innovative education system.

The policy and the related procedures, however, are not yet fully integrated into institutional governance and strategic management. Responsibilities between central units, faculties, departments, and programme leaders are not always defined with sufficient clarity. The participation of students, alumni, and employers is present but not yet structured through permanent bodies with clear mandates.

The policy covers all cooperative and international activities and establishes a uniform approach to academic integrity, complaints and appeals. The policy and the resulting measures are publicly available. However, the connection between the mission statement and the quality objectives is not consistently documented in annual quality plans at the institutional, faculty and programme levels. Overall, however, the quality assurance concept, which is aligned with international standards, is an important foundation for ensuring governance and quality throughout the university. The accompanying action plan sets out clear milestones, responsibilities and timelines, enabling systematic implementation and accountability. Alignment with

international QA standards allows for comparison with global competitors and supports future accreditation processes, thereby increasing credibility with stakeholders. The QA framework harmonised the activities of central units, faculties and degree programmes, thus ensuring consistency and transparency. This prerequisite forms the basis for continuous monitoring and improvement, enabling evidence-based decisions and measurable progress in alignment with ESG standards.

### 1.3 Conclusion

The criterion is **fulfilled**.

**The expert group proposes the following recommendations:**

- Andijan State University should approve and publish an integrated policy for quality assurance that is binding for all units, available in the three working languages, and explicitly linked to the university mission and strategy.
- The university should define a yearly quality plan at institutional, faculty, and programme level and should report on progress at the end of each cycle.
- Responsibilities for quality assurance should be mapped and documented so that central units, faculties, departments and programme leaders understand their roles, with students and external stakeholders engaged through standing committees and advisory boards.
- The policy should cover academic integrity, freedom of expression in teaching and research, non discrimination, complaints and appeals, and the quality assurance of collaborative and transnational provision.
- The university should publish a yearly quality report that summarises findings, actions, and improvements.

## 2 ESG Standard 1.2: Design and approval of programmes

**Institutions should have processes for the design and approval of their programmes. The programmes should be designed so that they meet the objectives set for them, including the intended learning outcomes. The qualification resulting from a programme should be clearly specified and communicated, and refer to the correct level of the national qualifications framework for higher education and, consequently, to the Framework for Qualifications of the European Higher Education Area.**

### 2.1 Implementation

#### 2.1.1 Physics – Bachelor's

In the early years of Andijan State University, when it functioned as Andijan Teachers' Institute, mathematics and physics were taught within the Department of Natural Sciences. In the 1944–1945 academic year, the Department of Physics and Mathematics was established as a separate unit, and in 1955, the Department of Physics was formed as an independent entity. This marked a new stage in the history of physics education at the University. In 2022, within the Faculty of Physics-Mathematics-IT, the Department of Physics was reorganized and divided into two independent divisions: (i) Department of General Physics, delivering BSc in Physics Program and (ii) Department of Condensed Matter Physics, delivering MSc in Physics of Semiconductors Program. Training specialists in physics has remained one of the university's core missions.

The "Physics Education" program complies with Level 6 of the National Qualifications Framework, ensuring that competencies and outcomes defined in the curriculum meet both general and professional qualifications. Recognized by the State Inspectorate for Quality Control of Education, Andijan State University can issue state-standard documents for the Bachelor Degree in Physics.

Graduates receive qualifications such as Physicist, Physicist-Engineer, and Teacher, allowing them to address complex issues in various educational and research contexts. The program aims to prepare teachers with robust physics knowledge who can think critically and analytically, engage in research, and develop competently for the labor market.

The Programme Learning Outcomes specify that graduates will gain theoretical knowledge, experimental culture, computational skills, educational methodologies, and essential soft skills such as communication and problem-solving.

The curriculum structure includes compulsory modules covering essential physics topics and pedagogy, alongside elective modules for deeper understanding in specialized areas. The learning process is supported by a credit system, requiring 240 credits for the Bachelor's degree, with students monitored in their individual learning trajectories.

Students have specialized laboratories, digital platforms, and pedagogical practice in real classroom environments, culminating in a Bachelor's Thesis that addresses a scientific problem or methodological task.

The curriculum is routinely updated in collaboration with employers and education stakeholders, ensuring relevance to labor market needs and alignment with modern technologies and international standards. This includes adopting best practices from leading universities, facilitating academic mobility, and improving graduates' competitiveness in the international labor market.

### **2.1.1 Physics of Semiconductors – Master's**

The Master's Program in Semiconductor Physics at Andijan State University offers training focused on both scientific and pedagogical aspects of the field. This program is designed to prepare graduates with advanced scientific and pedagogical skills, enabling them to pursue higher education, doctoral studies, and research degrees. The program aims to cultivate competitive professionals equipped with research capabilities to engage in scientific, pedagogical, and practical activities across higher education institutions, education management bodies, and research organizations.

The curriculum aligns with the competencies, outcomes, and teaching methodologies outlined in the National Qualifications Framework, and Andijan State University is authorized to issue state-standard education documents for the Master's Degree in the field of Physics. Graduates receive qualifications such as Physical Researcher and Research Engineer, specifically within the context of the Master's program in Semiconductor Physics, which prepares them to teach relevant subjects in higher education and engage with specialized issues in various research and production contexts.

The curriculum emphasizes a holistic approach that includes theoretical knowledge, practical training, laboratory exercises, and research activities. It is structured around a credit-module system that allows students to create individual educational paths. Key components of the curriculum consist of compulsory courses that encompass general, professional, and specialized topics, as well as elective courses. Additionally, the program incorporates scientific and

pedagogical work, a five-week research project at leading institutions in Uzbekistan, qualification internships, and the preparation and defense of a Master's Thesis.

Students can earn 30 ECTS credits per semester and 60 credits per academic year, with each credit equating to 30 academic hours. In the full-time Master's program, 30-40% of the study time is dedicated to classroom instruction, with a total requirement of 120 credits over four semesters, amounting to 3600 academic hours for the entire program.

### **2.1.2 Chemistry – Bachelor's**

The Chemistry education program aims to achieve several main objectives: preparing teachers who think critically and analytically with modern chemical knowledge, engaging students in scientific research for professional development, training specialists competitive in the labor market with a strong ethical foundation, and fostering independent thinking and problem-solving abilities in chemistry.

The curriculum is composed of compulsory and elective modules. Core subjects include Inorganic Chemistry, Analytical Chemistry, Chemistry Teaching Methodology, Environmental Chemistry, and various pedagogical courses. Elective modules allow students to tailor their studies to their interests and career goals.

At the beginning of each academic year, students receive detailed information about the curriculum, including educational elements, credit requirements, assessment criteria, and procedures for course withdrawal and retaking credits. Course programs are published online and supervised by faculty tutors, allowing students to select subjects from alternative options. Students can also choose their instructors according to university guidelines.

Students earn 30 credits per semester, totalling 180 credits for a three-year bachelor's degree or 240 credits over four years. Access to specialized computer labs, electronic libraries, and digital learning platforms enhances the learning experience, supplemented by software like GeoGebra and Maple.

The university charter affirms students' rights to provide feedback on educational quality, leading to regular curriculum updates in collaboration with regional educational stakeholders, including employers.

Overall, the university's objectives focus on producing highly qualified specialists aligned with modern market needs, implementing innovative teaching methods, fostering analytical thinking, involving industry experts in education, and supporting international collaboration through

exchange programs. Furthermore, the institution promotes a transparent educational environment that encourages ethical principles among students.

### **2.1.3 Chemistry – Master's**

The Master's Chemistry study program is aimed at achieving the following main objectives: Preparing teachers who think critically and analytically and possess modern chemical knowledge; Engaging students in scientific research to ensure their professional development; Training specialists who are competitive in the labour market, ethically responsible, and possess high pedagogical culture; Developing students' ability to think independently, solve problematic situations related to chemistry, and create innovations.

At the beginning of each academic year (usually within the first two weeks): Students are provided with information on the list and content of educational elements planned for the academic year, the number of credits, minimum GPA requirements, study rules, assessment criteria, course withdrawal procedures, rules for retaking failed credits, and fees. Course programs are published on the university's website. These include course content, learning procedures, types and formats of assessment, assessment criteria, and the list of literature used. According to the curriculum, each student's individual learning trajectory is formed under the supervision of tutors and controlled by the faculty dean. Students are given the opportunity to independently select subjects from alternative options offered in the curriculum. Elective courses are included in the educational process based on the minimum required number of students in the academic group, as specified by the regulations. Students may change their elective subjects during the first week of each semester by submitting an individual or group request to the faculty dean. If the request is approved, the faculty dean submits a proposal to the university rector to reconsider the teaching load and staff schedule of the relevant department. Students may also be allowed to choose their teachers for courses. The procedure for this is determined by the University Council.

The Master's programs 30–40% are allocated to classroom activities. In part-time education, classroom hours for each subject must constitute at least 30% of the classroom hours of full-time education. The credit points are in the first year: 60 credits (1800 academic hours) and in the second years: 120 credits (3600 academic hours). The programs' topics for classes and dissertations are determined in collaboration with scientific institutions.

The university's main objectives include: Ensuring the training of highly qualified, creative, and honest specialists in accordance with modern requirements, advanced international experi-

ence, and labor market needs; Training masters in relevant economic sectors based on curricula and programs that provide fundamental, basic, and practical professional education; Implementing modern teaching methods, pedagogical, innovative, and ICT technologies, considering employer requirements, and developing students analytical thinking and professional skills, as well as the ability to independently acquire and effectively apply new knowledge; Expanding cooperation with leading educational and scientific institutions of developed foreign countries, conducting joint legal research, and promoting exchange programs for scientific-pedagogical staff and students; Involving specialists with practical experience in government and economic sectors and other organizations in the educational process, creating an effective system for their professional development, and engaging highly qualified specialists from leading foreign educational and research institutions in educational and scientific-methodological activities; Developing educational complexes and manuals in relevant educational directions and integrating them into the educational process; Implementing joint educational programs (double degree) with foreign partners and actively involving foreign scientists and specialists in teaching and educational activities; Conducting scientific research in priority sectors of the national economy based on production needs and applying the results in practice; Carrying out scientific research and experimental design work and involving students in these activities.

#### **2.1.4 Information Security – Bachelor’s**

Andijan State University offers an Information Security program at bachelor’s levels, designed to align with the State Standards of Higher Education (OTDS), the national education model, and European Standards and Guidelines.

The bachelor’s program aims to develop professionals with critical and analytical thinking skills and current cybersecurity knowledge. It emphasizes student engagement in research and practical projects to support professional development and ethical responsibility.

The learning outcomes for the bachelor’s degree include foundational knowledge of information security concepts such as cryptography, cryptology, and cryptanalysis, as well as the ability to analyse cryptographic problems. Graduates are expected to demonstrate clear written and oral communication of scientific ideas, develop teamwork skills, engage in continuous learning, and acquire pedagogical understanding. They will be prepared to apply interdisciplinary approaches to problems in information security and pursue roles in education or industry.

The program includes comprehensive documentation of academic staff qualifications and learning assessment processes to enhance academic integrity. It also involves stakeholder engagement for program development and supports professional development among faculty. The curriculum encompasses both mandatory and elective courses. Students should earn essential knowledge and skills relevant to the field of information security.

### **2.1.5 Information Security – Master’s**

The master’s program in information security aims to deepen theoretical knowledge in key areas such as cryptography, network security, and information systems protection. It focuses on developing practical skills essential for creating security policies, detecting and preventing attacks, and applying monitoring and testing methodologies. Additionally, the program wants to emphasize innovative approaches to security challenges in contemporary fields, including artificial intelligence, cloud technologies, the Internet of Things, and cyber-physical systems. Graduates of the program are expected to demonstrate their ability to conduct independent research, design and implement studies on information security, and employ modern technologies to enhance security. They should also be capable of producing scholarly writing and presentations. The curriculum comprises both core and elective modules with a credit structure that aligns with typical master’s program requirements. Furthermore, the program prepares graduates to pursue career opportunities in various sectors such as government, finance, IT, telecommunications, and international organizations. It also includes the modelling of interdisciplinary issues, enabling students to address complex problems that span multiple domains. The master’s program is structured to equip students with the advanced knowledge and skills necessary for practice in the field of information security.

### **2.1.6 Biology – Bachelor’s**

The study programmes Bachelor of Biology aims to achieve several key objectives: training teachers, preparing students for research activities, and developing highly qualified specialists who are competitive in the labor market with innovative approaches in biology.

The curriculum comprises compulsory and elective modules. Core subjects include General Biology, Botany, Zoology, Anatomy, Molecular Biology, Genetics, Microbiology, Biochemistry, and methods of teaching biology, among others. Elective modules allow students to deepen their studies based on interests and career goals.

At the start of each academic year, students receive detailed information about the educational elements for the year, including credits, GPA requirements, assessment criteria, and procedures for course withdrawal and retaking credits. Course syllabi are made available on the university website, detailing course content, assessment formats, and reference materials.

Each student's learning trajectory is guided by tutors and overseen by the faculty dean, allowing for individual subject selection from alternative options. Students can change elective subjects during the first week of each semester through a request process.

Students are expected to complete 30 credits per semester, totalling 240 credits over four years. The program includes access to specialized computer labs, electronic libraries, and digital learning platforms, with a library housing over 10,000 resources related to biology. Software tools such as BioRender and BLAST are utilized for research and analysis.

The university charter emphasizes students' rights to offer feedback on educational quality, which is considered during regular curriculum updates in collaboration with educational stakeholders.

Overall, the university focuses on training highly qualified specialists, implementing modern teaching methods, and fostering cooperation with international institutions. It promotes a transparent educational environment while instilling moral and ethical values in students.

### **2.1.7 Biology – Master's**

The Master's in Biology program is designed to achieve key objectives: training teachers, preparing students for research activities, and developing highly qualified specialists who can compete in the labor market with innovative approaches in biology.

The curriculum consists of compulsory and elective modules. Core subjects include Methodology of Scientific Research, Methods of Teaching Specialized Subjects, and Current Issues in Biology, among others. Elective modules allow students to explore their interests and future career paths.

At the beginning of each academic year, students receive comprehensive information about the curriculum, including credit requirements, GPA standards, assessment criteria, and procedures for course withdrawal and retaking credits. Course syllabi are accessible on the university website, detailing course content and assessment formats.

Each student's learning path is overseen by tutors and the faculty dean, allowing for independent selection of subjects. Students can change their elective subjects during the first week of each semester, following an approval process.

Students are expected to complete 30 credits per semester, equating to 60 credits per academic year for a total of 120 credits over two years. The program offers access to well-equipped computer labs, electronic libraries, and digital learning platforms, with resources exceeding 10,000 entries related to biology. Software tools like BioRender and GenBank are actively used for research.

According to the university charter, students can submit suggestions and feedback to enhance the educational process. Curriculum updates occur regularly in cooperation with educational stakeholders.

The program emphasizes training highly qualified specialists, implementing modern teaching methods, fostering cooperation with international institutions, and cultivating ethical values among students.

### **Mathematics – Bachelor's**

The curriculum for the Mathematics Education program is based on a credit-module system, allowing students to form individual educational trajectories. The academic year is divided into two semesters (odd and even), with compulsory and elective courses taught in each semester. The compulsory courses block includes general courses, general professional courses, and specialized courses, providing students with fundamental knowledge related to the field. The elective course block allows students to select courses based on their interests and future professional directions. For example, courses oriented toward informatics in mathematics, applied mathematics, interdisciplinary courses, or courses dedicated to pedagogical innovations. This helps students deepen their specialization. The Practical, qualification, and pedagogical internships hold an important place in the curriculum. Pedagogical internships take place in schools, colleges, and lyceums, aiming to apply theoretical knowledge in practice and develop and strengthen teaching skills. At the end of the bachelor's degree, students defend a final qualification thesis. This work demonstrates the student's ability to conduct independent research and systematize acquired knowledge. The curriculum ensures a comprehensive approach that supports not only students' academic achievements but also their personal and professional development.

### **Mathematics – Master's**

The curriculum for the Mathematics specialty is based on a credit-modular system, which allows students to design an individual learning trajectory. The academic year is divided into semesters, and each semester includes both compulsory and elective courses. The compulsory courses cover general, professional, and specialized subjects to provide foundational knowledge in the field. The elective courses Students choose courses based on their interests and research direction. Examples include applied mathematics, computational mathematics, mathematical modeling, industrial mathematics, and mathematical economics. In the master's program, special attention is given to students' research activities. Under the supervision of academic advisors, students publish scientific articles, participate in scientific conferences, and engage in research projects. The final stage is the defense of a master's thesis, demonstrating the student's ability to conduct independent research, organize findings, and present them effectively.

The curriculum is designed to deepen academic knowledge, enhance research skills, and prepare students for scientific and pedagogical work

### **Economy – Bachelor's**

The economics curriculum offers a number of advantages over other areas of study. First, it provides students with the opportunity to develop their logical thinking skills. The knowledge gained through this program is not only theoretical, but also practical, helping students to acquire the ability to apply mathematics in various disciplines and fields. Furthermore, this program is closely related to fields such as information technology, physics, engineering, and economics, enabling students to become versatile professionals who can adapt to multiple fields.

During the learning process, students are given the opportunity to develop deep analytical thinking, solve complex problems, apply algorithmic approaches, and master abstract concepts. These skills prepare them to work effectively in difficult situations. Through modern curricula and practical practices, students receive education through interactive teaching and innovative methods. As a result, students become independent thinkers and have the potential to become highly qualified specialists in their chosen field.

In addition, the Economics Education program introduces students to teaching methodologies that will enhance their ability to teach mathematics more effectively and convey knowledge to

younger generations. Graduates of this program have wide career opportunities in universities, schools, research institutions, as well as in IT companies and the financial sector

Therefore, the Economics education program has a significant advantage over other fields, offering not only strong theoretical knowledge, but also practical skills and broad career prospects. The Economics Education Program aims to achieve the following main objectives: To introduce students to the basics of micro- and macroeconomics, to develop analytical and practical economic skills so well as to train independent thinkers and competitive personnel in areas such as market economy public policy, finance, statistical analysis, and international economic relations.

The study program is divided into mandatory (core) and elective modules. Compulsory modules include the following subjects: Applied Mathematics, Economic, Information and Communication Technologies and Systems in Economics, Foreign language, Uzbek (Russian) Language, History of Economic Studies, Recent History of Uzbekistan, Religious Studies, Physical Culture and Sports, Academic Skills and Professional competence, Philosophy, Statistics, Introduction to Econometrics, Applied Econometrics, 1.2, Macroeconomics 1.2, Environmental Economics and Climate Change nomic Policy, Economic Data Analysis, Institutional Economics, Financial Economics Security, Global Economic Development, Macroeconomic Analysis Forecasting, Investment Project Analysis, Network Economic. Elective modules allow students to explore subjects in greater depth based on their interest's future career plans.

## **2.2 Assessment**

### **2.2.1 Physics – Bachelor's**

Overall, the Bachelor of Physics programme integrates and aligns well with the mission and strategy statements of Andijan State University. The main objectives and learning outcomes are adequate for professional field and align well with the strategy of the University. The learning outcomes are also directed towards preparation of students for the next level graduate studies. The Program Learning Outcomes are clearly identified as such and made available to the public. Following the on-site visit, the university has made further improvements in this area.

The curriculum structure of the program meets expectations based on the requirements to Bachelor level programs in Physics, as formulated by leading professional societies, such as American Physical Society in USA and "Physics Core" defined by the Institute of Physics in UK. Curriculum structure contributes towards attaining of program learning outcomes, with the

sufficient workload and clearly identified credit-based modules. However, there is a particular need to renew, improve and expand the laboratory base for Physics modules with lab component. Therefore, the Program Specific Recommendation is to invest into the laboratory equipment for Bachelor Physics courses.

Significant part of the curriculum, and one of the five program learning outcomes, is devoted for preparation of the graduates for “Teacher” qualification, e.g. the modules on pedagogy, psychology, inclusive education, etc., including pedagogical practice in schools (internships), organized by the University. This emphasis of the program correlates with the main mission of the University to train “scientific-pedagogical personnel”, strongly linking research and teaching as the main future career opportunities for Bachelor’s in Physics graduates. The in-person meeting with students also has shown strong interest of students for further graduate studies with the aim to become, eventually, a “University teacher”. This aim can be understood as equivalent of a general academic career with the perspectives to future internationalization, including university studies (foreign lecturers) as well as student career outlook (graduate studies and employment overseas). Thus, the role of student support, academic and career advising should be emphasized, as stated in the Overarching Recommendations 7 and 10. This also brings the need to address the issues stated in the Overarching Recommendations 9 and 11, namely to improve access of students to the language learning facilities and the literature in English.

The program design is mainly regulated, and the improvements must be approved by the Ministry of Higher Education, Science and Innovation of Uzbekistan. Procedure for major program modification includes cooperation between universities, centrally managed and organized, with the feedback and proposals collected from Faculty, students, and external stakeholders every year. In general, an equivalent of the four purposes of higher education of the Council of Europe (sustainable employment, personal development, active citizenship, and broad advanced knowledge base, stimulating research and innovation) are incorporated into the program design.

However, the expert group recommends building a sustainable system for program assessment and continuous improvement. This improvement topic is reflected in the Overarching Recommendations 6, 8, and 11. Specifically, the program learning outcomes should serve as the guiding principles and aims for targeted assessment of student attainment of student outcomes, preferably based not on the grades received by students and not only on their direct feedback, but on a measurable set of performance indicators.

The overall positive side of the Bachelor's in Physics program at the Andijan State University is the clearly defined and apparent strategy of the University Management, as well as the aspirations of Physics Faculty and students, to develop the University towards international standards in education and research and towards its internationalization and competitiveness. These are commendable efforts, and the outlined action plan should lead to achieving of these goals.

**The expert group proposes the following recommendation:**

- The University should invest into the laboratory equipment for Bachelor Physics courses.

### **2.2.2 Physics of Semiconductor – Master's**

The overall assessment of Master in Semiconductor Physics program is similar to the Bachelor program above, with the same recommendations. In addition, the following program specific issues were observed and identified.

The program learning outcomes need to be formulated, at the moment the program goals on page 6 of self-assessment report do not provide the expected details on the program objectives, structure, as well as its alignment with University mission and the needs of program constituencies. Therefore, the Program Specific Recommendation 1 is to develop program learning outcomes, taking the Bachelor program outcomes as a base as well as strongly aligning the two programs. In particular, Master program offers highly specialized courses, such as "Semiconductor crystallography", "Semiconductor quantum nanostructures", etc, but it remains not clear if necessary background is gained by students in their Bachelor studies, because the advanced subjects such as quantum mechanics are electives. There is also a very strong emphasis in the program on the pedagogy, with several modules devoted to teaching methodology. However, it remains not clear if such a significant part of the programs needs to be allocated for this purpose, taking up an opportunity to build strong foundation in advanced Physics topics for the student specializing in Semiconductor Physics.

In accordance with the "Overview of labs and equipment" document, the main research and learning experimental facility for Master students is the Educational Laboratory "Characteristics and Parameters of a Solar Cell", equipped with the "Stand for Studying Photovoltaic power plants". This facility is directly relevant to the program scope. However, in accordance with syllabi in the Module Handbook many of the highly specialized modules include laboratory works, namely:

YAFI1106 Semiconductor physics

YAAF1206 Physics of semiconductor devices

MYAR1405 Methods for determining the parameters of semiconductors

YKMT126 Semiconductor crystallography

YAAD2306 Diffusion of Atoms in Semiconductors

MPIS2306 Modeling of processes in semiconductors

MIC2306 Microelectronics and integrated circuits

It remains not clear which laboratory facilities can deliver these courses. Therefore, similar to the Bachelor program above the Program Specific Recommendation 2 is to invest into the laboratory equipment for Master Physics courses.

**The expert group proposes the following recommendations**

- The University should develop program learning outcomes, taking the Bachelor program outcomes as a base as well as strongly aligning the two programs
- The University should invest into the laboratory equipment for Bachelor Physics courses.

### 2.2.3 Chemistry – Bachelor's

The B.Sc. in Chemistry program aligns with the Higher Education Institution's mission by aiming to prepare qualified specialists who contribute to societal development through education, science, and applied research. The program focuses on producing chemistry professionals with deep subject knowledge and the ability to apply this knowledge in industry, pharmaceuticals, and academia. Many alumni have pursued careers in higher education or graduate studies locally, reflecting the institution's strategic focus on regional academic development. However, the curriculum lacks coherence, logical sequencing, and adherence to international standards such as those of the American Chemical Society (ACS) and the Royal Society of Chemistry (RSC). The minimal coverage of emerging chemical science areas and inconsistencies in course content reduce the program's relevance and graduates' preparedness for diverse professional roles beyond academia.

Program design is governed primarily by the Ministry of Education's standardized requirements, limiting the involvement of external stakeholders such as industry representatives in

curriculum development. Student input occurs mainly through course evaluations, which influence delivery and content emphasis but do not affect core curriculum structure. This approach ensures national compliance but restricts flexibility and responsiveness to evolving professional and societal needs. The institution should consider developing mechanisms for broader stakeholder engagement within regulatory frameworks to enhance program relevance.

The main objectives of the program are: Preparing teachers who think critically and analytically and possess modern chemical knowledge; engaging students in scientific research to ensure their professional development; Training specialists who are competitive in the labour market, ethically responsible, and possess high pedagogical culture; Developing students' ability to think independently, solve chemistry-related problems, and create innovations.

These objectives reflect a comprehensive vision for the programme. Explicit and measurable learning outcomes are described. Clear learning outcomes, which are consistent with national qualifications frameworks and international standards, formulate the expected competences of students and serve as a guide for curriculum design and ensure effective assessment. Following the on-site visit, the university has made further improvements in this area.

The curriculum structure partially supports the program's objectives but suffers from a lack of coherent course progression and defined prerequisites, limiting systematic competency development. Inconsistent course titles and content reveal insufficient standardization. The curriculum minimally addresses contemporary topics such as green chemistry, computational chemistry, and industrial applications, restricting graduate readiness for diverse roles. Pedagogical training is insufficiently integrated with theory and innovative teaching methods, weakening the preparation of competent educators. The faculty's research focus is currently narrow, concentrating predominantly on natural product chemistry; diversification into other contemporary and applied areas of chemical research would enhance academic breadth and relevance. Additionally, laboratories require improvements to meet proper safety standards, including adequate safety features and strict adherence to guidelines on the number of students per lab to ensure safe working conditions. Overall, curricular revision is needed to enhance sequencing, content relevance, pedagogical integration, research diversity, and lab safety.

Graduates primarily pursue careers in education, with most working as teachers or continuing graduate studies locally. This focus aligns with the program's current design but limits career diversity and geographic mobility. Expansion of career guidance, institutional networks, job placement services, and partnerships with industry and other sectors is recommended to broaden graduate opportunities and promote professional growth beyond academia.

Student workload is defined through a credit system, but transparency regarding workload distribution, particularly for laboratory sessions, is insufficient. The intensive weekly labs may overburden students, potentially affecting their ability to balance other academic responsibilities. A review to evenly distribute lab work and clarify expected hours is advised to ensure manageable workloads and maintain learning quality.

Internships are mandatory annually starting from the first year, which may not be pedagogically appropriate as early students often lack sufficient knowledge and skills to benefit fully. Internships should be scheduled in later years when students are better prepared. The HEI should enhance internship support by establishing industry partnerships, providing preparatory workshops, assigning coordinators to assist students, and implementing mentorship and feedback mechanisms to maximize learning outcomes.

In summary, the program contributes to the HEI's mission but requires significant improvements in curriculum design, stakeholder involvement, learning outcome specification, workload management, career support, research diversification, and laboratory safety to enhance graduate readiness and employability in both academic and industrial sectors.

**The expert group proposes the following recommendations:**

- A clear and coherent course progression and defined prerequisites should be implemented.
- The course titles and the course content should be clearly related and coordinated.
- The curriculum should broaden up related to contemporary topics such as green chemistry, computational chemistry, and industrial applications.
- The Pedagogical training should be expanded related to theory and innovative teaching methods for the preparation of competent educators.
- The faculty's research focus is currently narrow, concentrating predominantly on natural product chemistry; diversification into other contemporary and applied areas of chemical research would enhance academic breadth and relevance.
- There should be curricular revision to enhance sequencing, content relevance, pedagogical integration, research diversity, and lab safety.
- Student workload for laboratory sessions should be described clearly.

#### 2.2.4 Chemistry – Master's

The Master's in Chemistry program partially supports the Higher Education Institution's (HEI) mission to develop specialists who contribute to education, science, and research regionally. Many graduates pursue local academic careers or doctoral studies, strengthening the regional workforce. However, the curriculum lacks the depth and structure expected of a graduate-level chemistry program and does not meet international standards from organizations like the American Chemical Society (ACS) and the Royal Society of Chemistry (RSC).

A major gap is the absence of core courses in fundamental chemistry disciplines such as organic, inorganic, physical, and analytical chemistry. Instead, the curriculum emphasizes broad, interdisciplinary topics with a heavy reliance on electives that are neither well sequenced nor linked by prerequisites. This limits students' ability to develop deep, progressive expertise. The program also neglects contemporary fields such as green chemistry, materials science, and industrial chemistry, which reduces graduates' competitiveness beyond academia.

While the program focuses on research methods and pedagogical training, supporting the goal of producing educators, this emphasis weakens core chemical science training. To meet national and international standards, the curriculum requires a better balance that integrates advanced subject knowledge with research and teaching skills. The program supports the HEI's mission but needs significant improvements in design, structure, and content to better prepare graduates for diverse careers.

The Master's program objectives include preparing teachers with critical thinking and modern chemical knowledge; engaging students in scientific research for professional growth; training competitive, ethically responsible specialists with strong pedagogical culture; and fostering independent thinking, problem-solving, and innovation. These goals suit graduate education, emphasizing knowledge, pedagogy, and research. The focus on innovation and complex problem-solving aligns with graduate expectations.

The program has clearly defined learning outcomes, essential for guiding competencies like independent research, critical evaluation, synthesis, and leadership. These align with frameworks such as the European Qualifications Framework (EQF) Level 7 or Dublin Descriptors. The explicit learning outcomes, which include chemical knowledge and transferable skills, research methods, scientific writing, project management and ethics, are considered very good for the coherence of the curriculum, assessment and preparation of graduates for academic careers and the labour market.

The program design is tightly controlled by Uzbekistan's Ministry of Education, limiting input from external stakeholders such as industry experts, employers, and professional bodies. Student feedback is limited to minor course adjustments through evaluations and informal input. While this centralized system ensures compliance, it restricts diverse stakeholder engagement. The institution should seek ways to increase involvement of external partners and students in continuous improvement within regulatory limits.

The curriculum structure poorly supports program goals. The lack of a clearly sequenced core in essential chemistry disciplines hampers specialized knowledge development. Heavy reliance on loosely connected electives limits coherent learning. The absence of contemporary topics like green chemistry, materials science, and industrial chemistry reduces relevance to current science and industry. Emphasizing research methods and pedagogy over chemical science weakens technical skills. A balanced, structured curriculum integrating core chemistry, modern trends, and research competencies is needed to prepare graduates for academic, research, and industry careers.

Career paths for graduates are mainly in education, with most alumni teaching or pursuing studies locally, especially at Andijan State University. This narrow focus limits exposure to broader academic and professional environments, likely due to limited institutional networks, career guidance, or program scope. While consistent with the program's mission, these paths may restrict long-term growth in a dynamic job market. Enhancing career support through guidance, job placement, partnerships with schools, government, NGOs, and private sector, and encouraging further studies nationally and internationally would foster professional growth and mobility.

Student workload is measured in credits, but transparency on workload distribution, especially labs, needs improvement. Weekly lab sessions are intensive and may overburden students, affecting balance with other coursework. Reviewing lab scheduling and intensity, clarifying expectations, and spreading lab work evenly across semesters would help manage workload effectively.

The MSc program lacks objectives distinct from the bachelor's level, weakening its graduate status. Research focuses narrowly on natural product chemistry, limiting scientific breadth. Research areas should diversify to include modern chemistry fields. Currently, only one shared research lab serves all faculty, restricting independent research. Establishing separate labs is essential to foster diverse research and improve quality. Teaching labs also should be upgraded to meet modern safety standards, ensuring a safe learning environment. Addressing these academic and infrastructure gaps is vital to improving program quality and relevance.

**The expert group proposes the following recommendations:**

- A clear and coherent course progression and defined prerequisites should be implemented and the course titles and content should be s
- The curriculum should broad up related to contemporary topics such as green chemistry, computational chemistry, and industrial applications.
- The Pedagogical training should be expand related to theory and innovative teaching methods for the preparation of competent educators.
- The faculty's research focus is currently narrow, concentrating predominantly on natural product chemistry; diversification into other contemporary and applied areas of chemical research would enhance academic breadth and relevance.
- There should be curricular revision to enhance sequencing, content relevance, pedagogical integration, research diversity, and lab safety.
- Student workload for laboratory sessions should be described clearly.
- Teaching labs also should be upgraded to meet modern safety standards, ensuring a safe learning environment.

**2.2.5 Information Security – Bachelor's**

The Information Security study programme holds significant strategic value for the region, addressing an urgent need for qualified specialists in the rapidly evolving field of cybersecurity. The programme is supported by modern infrastructure, including newly equipped computer laboratories that enable students to engage in practical, hands-on learning experiences aligned with contemporary industry standards. Furthermore, the department is led by a highly experienced and motivated head, whose strong commitment to academic excellence and active engagement in student development has been positively recognized during interviews with students.

While the programme demonstrates strong strategic relevance and institutional commitment, several areas for improvement have been identified that require systematic attention to ensure alignment with international quality assurance standards and to strengthen the programme's overall academic integrity and sustainability. These areas reflect both structural and operational gaps that can be effectively addressed through enhanced documentation, capacity building, and curriculum refinement.

As this is a newly established programme, the submitted documentation remains incomplete, with several aspects clarified only during the on-site interviews. These clarifications should be systematically documented to ensure alignment between institutional practices and formal accreditation requirements. A related concern is the absence of structured plagiarism monitoring procedures, particularly for technical subjects and project-based assessments. This gap is especially critical in the context of rapidly advancing AI technologies and the need to safeguard academic integrity.

Furthermore, stakeholder involvement in quality assurance and programme development remains limited. Stronger engagement from students, employers, and external partners is necessary to ensure the programme remains responsive to evolving industry and societal needs. Similarly, no reliable data are available on staff-to-student ratios or cybersecurity-related certifications among faculty. While professional development support is mentioned in institutional policies, there is no documented evidence of its implementation within this specific programme.

Additionally, insufficient English language proficiency among students has been identified as a significant barrier to accessing international academic and professional opportunities. Although the introduction of specialized English courses is planned, this initiative has not yet been implemented or reflected in the official documentation. Lastly, the curriculum structure lacks a clear balance between mandatory and elective courses. In particular, students in the 6th semester can bypass key cybersecurity courses in favour of unrelated computer science electives, which undermines the coherence of the programme and its capacity to guarantee core competencies in the discipline. Moreover, there is a curriculum design issue regarding the alignment between the programme title and its content. Although the programme is formally titled Information Security, the majority and in fact nearly all of the presented courses are oriented exclusively towards general technical and computer science subjects, with limited coverage of core information security domains such as governance, risk management, compliance, security policies, and legal frameworks. This raises legitimate concerns about the coherence between the programme's stated objectives and the actual competencies developed, as well as its alignment with international standards in cybersecurity education.

**The expert group proposes the following recommendations:**

- The University should compile and verify CVs for all academic staff involved in the Information Security programme and maintain a central staff database with documented cybersecurity qualifications and expertise to ensure accreditation readiness.

- The University should implement a formal plagiarism monitoring system, including anti-plagiarism software and clear academic integrity policies for all core and project-based assessments.
- The University should establish formal stakeholder engagement mechanisms (students, employers, alumni, external partners) integrated into programme design and quality assurance cycles, with defined reporting and accountability.
- The University should implement a formal data collection and analytics framework, including dashboards to monitor metrics such as staff-to-student ratios, cybersecurity staff certifications, industry collaborations, and student outcomes, and use results to inform planning.
- The University should rebalance the Information Security curriculum to ensure core domains (governance, risk management, compliance, security policies, regulatory frameworks) are included as mandatory courses, with electives for broader topics like AI/ML and data analysis and align with international cybersecurity standards.

### **2.2.6. Information Security – Master's**

The Information Security Master study programme holds significant strategic value for the region, addressing an urgent need for qualified specialists in the rapidly evolving field of cybersecurity. The programme is supported by modern infrastructure, including newly equipped computer laboratories that enable students to engage in practical, hands-on learning experiences aligned with contemporary industry standards. Furthermore, the department is led by a highly experienced and motivated head, whose strong commitment to academic excellence and active engagement in student development has been positively recognized during interviews with students.

While the programme demonstrates strong strategic relevance and institutional commitment, several areas for improvement have been identified that require systematic attention to ensure alignment with international quality assurance standards and to strengthen the programme's overall academic integrity and sustainability. These areas reflect both structural and operational gaps that can be effectively addressed through enhanced documentation, capacity building, and curriculum refinement.

Firstly, there is a lack of complete documentation of academic staff, including missing CVs of key personnel. Transparent and comprehensive documentation is essential for accreditation processes and for ensuring clarity regarding faculty qualifications. In addition, some instructors

responsible for teaching core cybersecurity subjects (e.g., M.M. Yuldashev) do not have a demonstrable research or professional background in the field, which raises concerns regarding the depth of subject-matter expertise and supervision capacity.

Secondly, as this is a newly established programme, the submitted documentation remains incomplete, with several aspects clarified only during the on-site interviews. These clarifications should be systematically documented to ensure alignment between institutional practices and formal accreditation requirements. A related concern is the absence of structured plagiarism monitoring procedures, particularly for technical subjects and project-based assessments. This gap is especially critical in the context of rapidly advancing AI technologies and the need to safeguard academic integrity.

Furthermore, stakeholder involvement in quality assurance and programme development remains limited. Stronger engagement from students, employers, and external partners is necessary to ensure the programme remains responsive to evolving industry and societal needs. Similarly, no reliable data are available on staff-to-student ratios or cybersecurity-related certifications among faculty. While professional development support is mentioned in institutional policies, there is no documented evidence of its implementation within this specific programme.

Additionally, insufficient English language proficiency among students has been identified as a significant barrier to accessing international academic and professional opportunities. Although the introduction of specialized English courses is planned, this initiative has not yet been implemented or reflected in the official documentation. Lastly, the curriculum structure lacks a clear balance between mandatory and elective courses. In particular, students in the 6th semester can bypass key cybersecurity courses in favour of unrelated computer science electives, which undermines the coherence of the programme and its capacity to guarantee core competencies in the discipline. Moreover, there is a curriculum design issue regarding the alignment between the programme title and its content. Although the programme is formally titled Information Security, the majority and in fact nearly all of the presented courses are oriented exclusively towards general technical and computer science subjects, with limited coverage of core information security domains such as governance, risk management, compliance, security policies, and legal frameworks. This raises legitimate concerns about the coherence between the programme's stated objectives and the actual competencies developed, as well as its alignment with international standards in cybersecurity education.

**The expert group proposes the following recommendations:**

- The University should compile and verify CVs for all academic staff involved in the Information Security programme and maintain a central staff database with documented cybersecurity qualifications and expertise to ensure accreditation readiness.
- The University should implement a formal plagiarism monitoring system, including anti-plagiarism software and clear academic integrity policies for all core and project-based assessments.
- The University should establish formal stakeholder engagement mechanisms (students, employers, alumni, external partners) integrated into programme design and quality assurance cycles, with defined reporting and accountability.
- The University should implement a formal data collection and analytics framework, including dashboards to monitor metrics such as staff-to-student ratios, cybersecurity staff certifications, industry collaborations, and student outcomes, and use results to inform planning.
- The University should rebalance the Information Security curriculum to ensure core domains (governance, risk management, compliance, security policies, regulatory frameworks) are included as mandatory courses, with electives for broader topics like AI/ML and data analysis and align with international cybersecurity standards.

### **2.2.7 Biology — Bachelor's**

The study program Bachelor's in Biology fits in very well with ASU's mission and strategy, as the program train highly qualified specialists and academic-pedagogical personnel, who are competitive in international education, higher education and modern economic sectors. They aim to achieve an international standard through this accreditation, too.

According to the documents it is not clear what would be the process for the design and approval of both study programmes. It is also not described whether external stakeholders and students are involved in the design of the study programmes.

The objectives and learning outcomes of both programmes are described. A division of the overall objectives into professional, methodological and social skills or similar would lead to a clearer understanding.

The learning outcomes mentioned reflect the requirements from the professional field and the demands on a Bachelor respectively Master level in an adequate way. The curriculum of the program fits into the defined objectives

A clear communicated career opportunity is mentioned which gives a broad overview of the different future jobs for a student. Especially the individual student's path is accompanied by an academic advisor. There is support by university for internship or practical work, but there is no specific internship period with ECTS.

The expected student workload is well described and given in ECTS.

The study programme reflects the four purposes of higher education of the Council of Europe.

The criteria according to ESG Standard 1.2 are largely fulfilled. However, the documentation for the design and approval process for the degree program must be submitted in a comprehensible and publicly accessible form.

**The expert group proposes the following recommendation:**

- The University should deliver documentation for the design and approval process degree programs in a comprehensible and publicly accessible form.

### **2.2.8 Biology – Master's**

The study program Master's in Biology fit in very well with ASU's mission and strategy, as the program train highly qualified specialists and academic-pedagogical personnel, who are competitive in international education, higher education and modern economic sectors. They aim to achieve an international standard through this accreditation, too.

According to the documents it is not clear what would be the process for the design and approval of both study programmes. It is also not described whether external stakeholders and students are involved in the design of the study programmes.

The objectives and learning outcomes of both programmes are described. A division of the overall objectives into professional, methodological and social skills or similar would lead to a clearer understanding.

The learning outcomes mentioned reflect the requirements from the professional field and the demands on a Bachelor respectively Master level in an adequate way. The curriculum of the program fits into the defined objectives

A clear communicated career opportunity is mentioned which gives a broad overview of the different future jobs for a student. Especially the individual student's path is accompanied by an academic advisor. There is support by university for internship or practical work, but there is no specific internship period with ECTS. The expected student workload is well described and given in ECTS.

The study programme reflects the four purposes of higher education of the Council of Europe.

The criteria according to ESG Standard 1.2 are largely fulfilled. However, the documentation for the design and approval process for the degree program should be submitted in a comprehensible and publicly accessible form (compare recommendation for the Biology Bachelor's program).

**The expert group proposes the following recommendation:**

- The University should deliver documentation for the design and approval process degree programs in a comprehensible and publicly accessible form.

### **2.2.9 Mathematics – Bachelor's**

The Programme-specific Observations and Recommendations Mathematics Bachelor Programmes. Students can access course resources online; however, availability is limited, and the number of textbooks per subject area is not clearly specified, with English-language resources scarce (Overarching recommendation 2). As the university aims for internationalisation, access to updated, high-quality, and ethically obtained resources in English should be strengthened. Academic advising and support are provided by course instructors, but the establishment of a formal academic advisory system would support students' academic development, mobility, and career planning. The curriculum and interdisciplinarity could be enriched by minor or double major opportunities with related fields such as Economics, Information Security, and Computer Engineering, and by allowing electives across departments beyond those defined by the Ministry to promote interdisciplinary learning and student mobility. Programme evaluation should systematically involve external stakeholders, such as employers and alumni; benchmarking against the National Qualifications Framework and establishing a clear gender policy are recommended, along with continuous semester-wise evaluation and structured feedback loops. Overall, the Mathematics programmes show strong potential for development; however, improvements in resource availability, academic advising, interdisciplinarity, and structured stakeholder involvement are recommended to ensure alignment with ESG and to support the university's internationalisation strategy.

**The expert group proposes the following recommendations:**

- The University should establish a formal academic advising system to support students' academic development, mobility, and career planning.

- The University should broaden interdisciplinarity by offering minor or double major options with related fields and by enabling cross-department electives beyond Ministry-defined offerings to enhance learning and student mobility.
- The University should implement structured stakeholder involvement in programme evaluation, benchmark against the National Qualifications Framework, and establish a gender policy, complemented by continuous semester-by-semester evaluation and feedback loops.

#### **2.2.10 Mathematics – Master’s**

The Mathematics Master Program gives the opportunity that Students can access course resources online; however, availability is limited, and the number of textbooks per subject area is not clearly specified, with English-language resources scarce. As the university aims for internationalisation, access to updated, high-quality, and ethically obtained resources in English should be strengthened (Overarching recommendation 2). Academic advising and support are provided by course instructors, but the establishment of a formal academic advisory system would support students’ academic development, mobility, and career planning. The curriculum and interdisciplinarity could be enriched by minor or double major opportunities with related fields such as Economics, Information Security, and Computer Engineering, and by allowing electives across departments beyond those defined by the Ministry to promote interdisciplinary learning and student mobility. Programme evaluation should systematically involve external stakeholders, such as employers and alumni; benchmarking against the National Qualifications Framework and establishing a clear gender policy are recommended, along with continuous semester-wise evaluation and structured feedback loops. Overall, the Mathematics programmes show strong potential for development; however, improvements in resource availability, academic advising, interdisciplinarity, and structured stakeholder involvement are recommended to ensure alignment with ESG and to support the university’s internationalisation strategy.

#### **2.2.11 Economics – Bachelor**

The Bachelor of Economics study program demonstrates board compliance across all quality assurance areas. The university has established a clear internal quality assurance framework, aligned its program design with national and European (ECTS/NQF) requirements, and provides students with transparent admission, assessment, and certification processes. Learning

resources, teaching staff qualifications, and public information provision meet the accreditation expectations.

The curriculum allows for individual learning trajectories supervised by tutors, and students may select elective subjects; electives are activated when a minimum number of students is reached, and changes to electives require approval from the dean and, in some cases, the rector. The programme allocates credits per semester and year and distinguishes between full-time and part-time workloads. Curricular adjustments are made in collaboration with regional education authorities and employers to align with labour market needs, and course and dissertation topics in graduate programmes are developed with scientific institutions.

The university continuously evaluates its teaching methods, with anonymous course evaluations conducted at the end of each semester; results are shared with the faculties and may lead to corrective actions. Students have avenues to submit complaints or suggestions through lecturers, the dean's office, or the student council, with feedback possible orally, in writing, or electronically. Regulations detailing assessment criteria and methods are available to students via the HEMIS platform; assessments utilize formats including written and oral examinations, laboratory reports, term papers, presentations, and projects.

Although, the integration of external stakeholders, mainly alumni and employers, into program design and monitoring the program should be expanded to strengthen labor market relevance. As well as the information management system could be more systematically track graduate employability and employer feedback, feeding this data back into curriculum improvement. The university also could further expand structured pedagogical training for teaching staff which is supported professional development, to insure continuously adapted modern and student-centered teaching practices.

**The expert group proposes the following recommendations:**

- The integration of external stakeholders, mainly alumni and employers, into program design and monitoring the program should be expanded to strengthen labor market relevance
- The information management system could be more systematically track graduate employability and employer feedback, feeding this data back into curriculum improvement.
- The university also could further expand structured pedagogical training for teaching staff which is supported professional development, to insure continuously adapted modern and student-centred teaching practices.

### 2.3 Conclusion

The expert group proposes the following overarching recommendation for all study programmes:

- The university should also ensure that the learning objectives of the courses and the learning objectives of the reviewed degree programme are clearly described and coordinated with each other.

The criterion is **fulfilled**.

## 3 ESG Standard 1.3: Student-centred learning, teaching, and assessment

**Institutions should ensure that the programmes are delivered in a way that encourages students to take an active role in creating the learning process, and that the assessment of students reflects this approach**

### 3.1 Implementation

Student-centred learning is implemented at Andijan State University through various strategies and methods aimed at increasing student motivation, self-reflection, and engagement in the learning process. Students actively participate in the development of educational programs. They participate in questionnaires, discussions of educational problems, and the introduction of new subjects, which is of great importance for them in shaping their educational trajectory.

Teaching and learning are designed to engage students actively across all programmes. A range of methods is applied including lectures seminars tutorials practical laboratory sessions workshops group work independent study and digital learning tools enabling students to acquire theoretical practical and analytical skills. The university conducts end of semester anonymous course evaluations results are shared with the faculties and may inform improvements. Students may submit complaints or suggestions through lecturers the dean's office or student representatives with feedback possible orally in writing or electronically. The assessment framework described in regulations accessible via the HEMIS platform covers current intermediate and final assessments with criteria presented openly. The institution provides multilingual education in three languages including Uzbek and Russian and uses digital technologies such as electronic textbooks multimedia materials video lectures and interactive teaching methods. Teaching staff employ interactive and role-playing activities discussions brainstorming and project-based learning. A department monitors student performance to support education quality. Students can shape their educational trajectory under supervision with the option to appeal

assessment results to an Appeals Board established by the rector. At the start of each academic year information about courses credits minimum GPA learning rules assessment criteria course withdrawal and retake procedures is published online and syllabi are available on the university website. Electives are offered based on student demand with changes allowed in the first week of each semester and instructors for courses may be selected by a policy of the University Council. In full time study 40–50% of the workload is classroom instruction and in part time study at least 30% of classroom hours are allocated to each subject. The university charter lists rights to express suggestions and participate in events and curricula are adjusted in collaboration with regional authorities and industry partners. Masters and doctoral topics are determined with involvement of scientific institutions and the university operates a distance learning platform allowing study from various locations with multimedia enabled lessons under supervision.

### **3.2 Assessment**

At Andijan State University, teaching and learning are designed to encourage students to play an active role in the learning process. Across all programmes, a range of teaching and learning methods is applied to suit the level and nature of each discipline. These include lectures, seminars, tutorials, practical laboratory sessions, workshops, group work, independent study, and the use of digital learning tools. This variety allows students to acquire theoretical knowledge as well as practical and analytical skills.

The university continuously evaluates and improves its teaching and learning methods. At the end of each semester, students complete anonymous course evaluations in which they provide feedback on the quality and effectiveness of teaching, course organisation, and learning resources. The results are shared with the respective faculties, who then discuss the findings and may implement corrective measures where needed. This process ensures that student feedback directly contributes to the enhancement of teaching quality and learning experiences.

Students have several options to submit complaints or suggestions for improvement regarding personal concerns or the general teaching and learning. They may address their concerns to their lecturers, the dean's office, or through representatives of the student council. Feedback can be provided orally, in writing, or electronically, which ensures that students' voices are heard and acted upon at multiple levels.

The university has established regulations and documents that clearly define the criteria and methods of student assessment. These regulations are accessible to all students through the

HEMIS online platform. There, students can view the assessment procedures along with related aspects in a clear manner.

A range of assessment formats is used, including written and oral examinations, laboratory reports, term papers, presentations, and individual or group projects. These formats provide opportunities for students to demonstrate their acquired knowledge, problem-solving skills, and the ability to apply theoretical understanding in practical contexts.

However, at present, the university cannot fully ensure that the different assessment formats are consistently aligned with the intended learning outcomes of each programme. To address this, it is recommended that a systematic mapping of assessment formats to learning outcomes be introduced. Such mapping would strengthen the validity of assessment by ensuring that each intended learning outcome is appropriately measured, and that students are assessed on what they are expected to learn. This would also promote coherence across courses and facilitate continuous quality improvement in assessment design.

Overall, Andijan State University demonstrates a commitment to fostering a student-centred learning environment through varied teaching methods, continuous feedback processes, and transparent assessment procedures. With further alignment of assessment methods to learning outcomes, the institution can enhance the validity and reliability of its assessment system and further support students' active engagement in the learning process. The criterion is fulfilled because Andijan State University applies diverse teaching and assessment methods, provides students with multiple feedback and complaint mechanisms, and ensures continuous improvement based on student evaluations. The institution demonstrates a clear commitment

### 3.3 Conclusion

The criterion **is fulfilled**:

**The expert group proposes the following recommendations:**

- There should be a mapping of formats of assessment to learning outcomes.
- A policy for the support of students with special needs, including disabilities, should be developed and implemented.

#### 4 ESG Standard 1.4: Student admission, progression, recognition, and certification

**Institutions should consistently apply pre-defined and published regulations covering all phases of the student “life cycle”, e.g. student admission, progression, recognition and certification.**

##### 4.1 Implementation

Admission to Andijan State University (ASU) is conducted by the State Commission, which evaluates applicants based on their scores from entrance examinations, including written and professional (creative) exams. The admission process is equitable for all applicants, whether seeking state-funded grants or tuition contracts, and operates under unified rules and a single competition. Applicants with the highest scores receive priority for state-funded positions, while others are admitted based on their ranking for tuition contracts. Some applicants may be exempt from entrance tests under preferential conditions. Foreign citizens are admitted in compliance with applicable laws.

Students' progress is monitored through a comprehensive system that includes various assessments, ensuring timely evaluation of student performance. The university uses a point-rating system for assessments, incorporating different methods such as oral surveys, written assignments, and discussions. This transparent system allows students to understand the criteria for evaluating their knowledge and skills.

The university recognizes prior formal and non-formal learning, allowing students to transfer credits based on their previous educational achievements. Formalization of learning outcomes is described in regulations that govern fee discounts for educational services. Automatic recognition of prior learning is established, shortening training duration based on the educational program profile.

Final certification at ASU involves a structured process, including comprehensive exams or defense of a diploma project. The timing and format of final assessments are organized according to the academic calendar, with oversight from commissioned faculty as well as external experts for quality assurance. Graduates receive a Diploma Supplement in three languages, detailing their completed studies.

The university focuses on training highly qualified personnel in both Bachelor's and Master's programs, with admission eligibility based on a range of secondary education qualifications. The authorized state body determines the list of Master's specialties, and graduates are awarded degrees following state certification.

The educational process at ASU is regulated by curricula and academic programs developed according to professional standards, ensuring that the necessary conditions are in place for students to master their chosen fields of study.

## **4.2 Assessment**

At Andijan State University, the admission, progression, recognition, and certification of students are guided by established regulations and procedures that ensure transparency, fairness, and academic integrity. These processes are designed to manage all phases of the student life cycle and to provide equal opportunities for all qualified applicants.

The admission requirements and processes are clearly defined and publicly available. Applicants are assessed based on their academic qualifications and, where applicable, entrance examinations or interviews. The transparent admission process ensures that students admitted to the programmes in Physics, Mathematics, Biology, and Economics possess the necessary competencies and motivation to complete their studies successfully.

Once admitted, students are supported in their academic progression through a range of services, including academic advising, mentoring, and access to digital learning platforms and resources. Regular monitoring of academic performance is conducted by the faculties, allowing early identification of students who may require additional support. However, the existing system would benefit from more clearly defined and regulated procedures governing student progression. Develop and define conditions and regulation covering the student progression. Establishing such a framework would strengthen consistency across programmes, ensure fairness in academic advancement, and provide a clear structure for both students and staff to follow.

The recognition of prior learning and external qualifications is handled by a dedicated transfer commission, which evaluates applications for credit transfer and the recognition of international study periods. The procedures generally follow international best practices and are compatible with the principles of the Lisbon Recognition Convention, ensuring fair recognition of qualifications and prior achievements. Depending on the circumstances, students undertaking mobility programmes abroad may receive varying degrees of financial support from the university, which promotes academic exchange and internationalization.

Upon completion of their studies, students receive formal certification documents that clearly state the qualification obtained, major field of study, and other relevant academic information.

These graduation documents are intended to be transparent and informative, supporting both employability and further study opportunities.

Overall, Andijan State University demonstrates a structured and transparent approach to student admission, recognition, and certification. With the development of clearer conditions and regulations for student progression, the university will be able to further ensure consistency and fairness throughout the student life cycle.

The criterion is fulfilled because Andijan State University applies clear and transparent procedures for student admission, recognition, and certification, ensuring fairness and consistency throughout these processes. The recognition of prior learning and international study periods is handled effectively through the transfer commission according to national guidelines. The graduation documents provide transparent information on student achievements.

### 4.3 Conclusion

The criterion is fulfilled.

**The expert group proposes the following recommendation:**

- The University should develop and define conditions and regulation covering the student progression.

## 5 ESG Standard 1.5: Teaching staff

**Institutions should assure themselves of the competence of their teachers. They should apply fair and transparent processes for the recruitment and development of the staff**

### 5.1 Implementation

Andijan State University implements its staff management and quality assurance through a structured framework that covers recruitment, professional development, workload planning, international mobility, and teaching evaluation. Pedagogical and other staff are recruited under Decree PQ-3775 dated June 5, 2018, through a competitive process that includes a trial lesson and public council involvement, with employment by labour contracts. The recruitment process involves advertising on the website and in print media with 30 days' notice, specifying the qualifications required, such as education and teaching experience. Applicants submit their CVs and undergo a selection process that includes demo classes and interviews. The Quality Assurance Committee plays a role in resolving issues by making recommendations based on

questionnaires and offering continuing professional development courses. Qualification requirements include degrees and research activities, and selected faculty members undergo a six-month probationary period. A Qualification Standard defines the roles, responsibilities, and research requirements for teaching staff, and job announcements are published publicly to ensure transparency. The university maintains a system for ongoing professional development, including annual planning, courses, seminars, and internships at national and international institutions, with records kept of these activities. A permanent Commission for quality assurance of teaching provides methodological support, assesses teaching quality, and adjusts pedagogical methods based on analyses and recommendations. Teaching workload is planned in hours, and the number of classroom hours per year is not less than 400 hours, with distribution guided by time standards approved by the Academic Council. The university supports international integration through faculty mobility for teaching and research, organized under cooperation agreements with partner institutions. The recruitment requirements are publicly described, with applicants submitting CVs, completing demo classes, and participating in interviews. The University Charter supports student engagement, including course evaluations and channels for feedback, and curricula are regularly adjusted in collaboration with regional education authorities, employers, and industry partners; master's and doctoral topics are developed with scientific institutions.

The university wants to ensure that pedagogical staff undergo professional development at least once every three years. The rights and responsibilities of the university's administrative-economic, engineering-technical, educational-support, and other staff are determined by the University's Internal Regulations, Code of Ethics, Anti-Corruption Program, and job descriptions.

## **5.2 Assessment**

The recruitment process is well and sufficiently documented and follows the national Decree of the President of the Republic of Uzbekistan No. PQ-3775 of June 5, 2018 (chapter 2.5). It describes the qualification requirements as well as the competitive selection procedure.

The university has a system of professional development and training for teaching staff, including annual planning and monitoring of professional development plans. Training and professional development are carried out through courses, seminars, and internships at leading national and foreign universities and organizations.

The ASU ensures that teaching staff undergo professional development at least once every three years.

Teaching staff actively participate in advanced training courses and receive certificates upon completion. The university keeps records of professional development activities, and events for the exchange of experience are organized.

Listed teaching staff is appropriate to teach the content of all study programs. But there is a lack of complete documentation of academic staff regarding the Study program Information Security, including missing CVs of key personnel. Transparent and comprehensive documentation is essential for accreditation processes and for ensuring clarity regarding faculty qualifications. In addition, some instructors responsible for teaching core cybersecurity subjects do not have a demonstrable research or professional background in the field, which raises concerns regarding the depth of subject-matter expertise and supervision capacity. However, based on the discussions, the expert committee assumes that this is more a documentation problem than a qualification problem, which is why no conditions are considered necessary in this case.

The university has a permanent Commission for checking the quality of teaching, which provides methodological assistance, assesses the quality of teaching, and adjusts pedagogical methods based on the results of analysis and recommendations.

### 5.3 Conclusion

The criterion is **fulfilled**.

**The expert group proposes the following recommendations:**

- As an overarching recommendation the university should encourage research staff to increase the numbers of international publications.
- For the study programmes “**Information Security (Bachelor’s and Master’s)**” the University should compile and verify CVs for all academic staff involved in the Information Security programme and maintain a central staff database with documented cybersecurity qualifications and expertise to ensure accreditation readiness.

## 6 ESG Standard 1.6: Learning resources and student support

**Institutions should have appropriate funding for learning and teaching activities and ensure that adequate and readily accessible learning resources and student support are provided.**

### 6.1 Implementation

The Information-Resource Center was built and commissioned in 2015 based on a special project. The building covers an area of 1967.4 m<sup>2</sup> and has a capacity to store 500,000 pieces of literature. It includes 3 electronic reading rooms with 90 seats and 5 traditional reading rooms with 250 seats serving literature. There is a subscription section for borrowing books for home use and storage rooms for over 200,000 books, all of which meet regulatory requirements. Reading rooms 204, 301, and 305 are equipped with cooling devices (air conditioners). All necessary conditions have been created for faculty, staff, and students.

The Information-Resource Center has reading rooms in the libraries of 5 student dormitories, fully equipped with all necessary educational literature. The university has developed electronic teaching aids for various disciplines, providing students with interactive and multimedia learning materials. These aids enhance the learning process and support students in mastering the theoretical and practical aspects of their education.

The university also maintains an educational portal that serves as a centralized platform for accessing learning materials, course information, and academic resources. The portal provides students with convenient access to essential educational content and tools.

Video lectures are offered as part of the university's distance learning program, allowing students to access recorded lectures and educational videos to supplement their learning. Video lectures are used to facilitate asynchronous educational interaction between teachers and students.

Andijan state university has introduced distance learning technologies to ensure equal rights for students and provide access to educational resources and materials outside of traditional classroom settings. These technologies support flexible learning paths and independent study.

The university's Student Service Center offers comprehensive support to students.

The Registrar's Office facilitates various administrative processes, including registration for disciplines, credit transfers, and the organization of current and final knowledge assessments. It serves as a central administrative hub for students' academic records and related services. This department provides educational and methodological support, analyzes students' aca-

ademic performance, and offers academic assistance to students. It also coordinates the implementation of educational programs and ensures the availability of necessary educational resources.

The "Student Internship Office" for graduates supports students in career guidance, job placement opportunities, and monitors the career growth of graduates.

The university employs psychologists who provide counseling and support to students, addressing various aspects of personal and social development, emotional well-being, and academic challenges.

Andijan state university offers financial support to students from socially vulnerable segments of the population, including discounts on tuition fees, grants, and scholarships. The university also provides free accommodation and travel tickets to eligible students.

The university appoints academic advisors to provide consulting assistance to students in solving academic problems and navigating the educational process. These advisors play a crucial role in guiding students through their academic journey and helping them plan their individual educational trajectories.

The university encourages student involvement in self-governance through bodies such as the Primary Organization of the "Youth Union of Uzbekistan", student councils, and group elders. These bodies provide students with a platform to voice their concerns and actively participate in the university's decision-making processes.

## **6.2 Assessment**

Andijan State University provides adequate learning resources and student support to ensure that teaching and learning activities are delivered effectively and that students can achieve the intended qualification goals. The available infrastructure, including lecture halls, laboratories, and IT facilities, is appropriate for the programmes in Physics, Mathematics, Biology, and Economics. During the site visit, the expert group was able to confirm that the spatial and technical conditions support the proper implementation of the programmes. Laboratory and classroom facilities are generally well equipped, though some areas would benefit from modernization to better support contemporary teaching methods.

The Information-Resource Center offers access to both physical and electronic resources. While the physical collection remains useful, it would benefit from expansion and updating, particularly with more recent English-language publications, catalogues, and scientific journals

to better support research and international collaboration. The online library access is functional, but further investment in digital subscriptions to English-language literature would significantly enhance academic engagement and resource accessibility.

Students generally feel well supported by the university's services. Though in the expert group's opinion, assigning dedicated student advisors would improve individualised academic guidance and help students navigate their learning pathways more effectively. In addition, a comprehensive digital learning management system (e.g. HEMIS) should be implemented for all study programmes.

The administrative and support staff at Andijan State University are qualified and contribute positively to student mobility and support. However, English proficiency among students and academic staff should be enhanced to promote international cooperation, participation in exchange programmes, and access to global academic resources. Moreover, the university should develop and implement a policy for the support of students with special needs, including disabilities, ensuring that all learners have equitable access to learning and support services.

Overall, the university's resources are adequate for achieving the programmes' objectives. Information about support services is generally available to students but could be communicated more proactively. The criterion is fulfilled because Andijan State University provides sufficient infrastructure, learning resources, and support services to enable the effective delivery of its programmes. However, to further enhance accessibility, inclusivity, and internationalisation, several improvements are recommended.

### 6.3 Conclusion

The criterion **is fulfilled**.

**The expert group proposes the following recommendations:**

- English proficiency among student and academic staff should be considered a core requirement to facilitate international collaboration and improve student support services.
- A policy for the support of students with special needs, including disabilities, should be developed and implemented.
- Student advisors should be allocated to support students in their academic journey.
- The library should expand the access to English media, publication, catalogues and to scientific journals.

- A digital learning management system should be implemented for all reviewed programmes.

## 7 ESG Standard 1.7: Information management

**Institutions should ensure that they collect, analyse and use relevant information for the effective management of their programmes and other activities.**

### 7.1 Implementation

The university utilizes various information systems, including its official website, the automated educational process management information system "HEMIS," and an electronic library. These systems serve as platforms for collecting, storing, and managing information related to academic programs, student performance, and administrative processes.

The university conducts internal audits at scheduled intervals to assess the effectiveness of its internal quality assurance system. These audits help identify areas for improvement and ensure compliance with regulatory documents and standards.

The university compiles management reports based on the analysis of information collected from various sources. These reports provide insights into the university's activities, challenges, and opportunities, serving as a basis for informed decision-making and strategic planning.

The university's strategic development is informed by the analysis of global trends in education, external challenges, and the characteristics of the labor market. This strategic approach ensures that the university's programs and activities remain relevant and aligned with evolving needs and opportunities.

Overall, Andijan state university's approach to information collection, analysis, and utilization is designed to promote evidence-based decision-making, continuous improvement, and the effective management of its programs and activities. By leveraging information from diverse sources and engaging with stakeholders, the university ensures that its programs remain responsive to the needs of its students and the broader academic community.

The HEMIS system is versatile and useful because it collects and presents all the necessary information for managing students, lectures, and curricula.

Specialists in the Quality Control Department of Education conduct surveys between students at the middle and end of each semester to timely identify any problems or concerns that may arise during the course. Through knowledge of student feedback, the university addresses

these problems and makes the necessary improvements, taking concrete measures to ensure a more efficient learning environment.

The main goal of the university is to train highly qualified specialists and scientific-pedagogical personnel who are comprehensively developed, value their homeland, feel responsible before the state and society, work conscientiously and honestly for the future of the country, respect national and universal values, unconditionally adhere to laws, and are competitive in the international educational arena with higher education in relevant sectors of the modern economy.

Additionally, the university exercises the powers granted in the areas of academic, organizational-administrative, and financial independence in accordance with legislative acts.

## **7.2 Assessment**

Andijan State University collects a broad spectrum of information for both regulatory reporting and internal management purposes, including enrolment figures, course-evaluation results, and selected administrative statistics. However, these data are not yet consolidated within a single, integrated information system that would enable systematic analysis, cross-validation, and evidence-based decision-making at institutional, faculty, and programme level. As a result, data remain dispersed across units, difficult to aggregate, and only partially available for strategic planning.

Definitions, data-quality standards, and responsibilities for data management are not formally established. Key datasets are incomplete, inconsistent, or not updated with sufficient frequency to support timely interventions. In several essential areas, the university does not yet apply structured analytical tools or monitoring procedures. This includes regular progression, retention, and completion analyses; systematic tracer studies that follow graduates into employment or further study; employer surveys assessing graduate competencies and workplace performance; and structured analyses of academic and administrative staff workloads. Where surveys or internal reviews are conducted, their results are not consistently communicated across organisational levels and do not reliably trigger documented follow-up measures or improvement actions.

Decision-makers currently have limited access to dashboards or reporting instruments that would provide up-to-date indicators for monitoring institutional performance. Moreover, the university lacks an early-warning mechanism capable of identifying students at risk of academic failure, allowing for timely referral to academic advising, mentoring, or other support services.

This limits the institution's capacity to intervene proactively and to ensure effective student success management.

### 7.3 Conclusion

The criterion is **fulfilled**.

**The expert group proposes the following recommendations:**

- Andijan State University should adopt a university wide information management approach that defines a single source of truth for student and programme data and that integrates quality assurance evidence.
- The university should establish a data governance charter with clear roles for ownership, stewardship, and review. A standard data dictionary should describe the meaning of key indicators.
- Regular dashboards should present progression, retention and completion, student feedback including workload, graduate destinations, employer feedback, and the status of audit and review actions.
- The university should implement a formal tracer study that reaches every graduating cohort within one year and a second follow up after three years. Employer surveys should be run to inform programme relevance.
- Learning analytics should be used to create an early warning process that supports students proactively through academic advising and targeted support. All reports should include a short narrative explaining how the findings will be used in planning and resource allocation.

## 8 ESG Standard 1.8: Public information

**Institutions should publish information about their activities, including programmes, which is clear, accurate, objective, up-to date and readily accessible.**

### 8.1 Implementation

The university maintains an official website (adu.uz) that operates in three languages (Uzbek, Russian, English). The website serves as a central platform for providing comprehensive information about the university's activities, including its history, mission, values, academic programs, and organizational structure. A specialized version of its website to cater to the needs of visually impaired individuals, is available, ensuring accessibility for all users.

The website contains information about the functioning of its internal quality assurance system, including the quality assurance policy and the work of Quality Assurance Commissions based on higher schools.

The results of external assessments, including accreditation and rating, are reflected in a dedicated section on the university's website, ensuring transparency regarding the quality of its programs and activities.

The University informed that the website provides detailed information for applicants and students, including admission criteria, regulatory documents, educational programs, academic policies, and opportunities for academic exchange and grants.

The university actively utilizes social media platforms, including Instagram, Facebook, YouTube, and Telegram, to disseminate information about its activities, programs, and events, reaching a wider audience and ensuring timely updates.

The university's official social media pages are managed by the media center and relevant structural units, ensuring that the content published on these platforms aligns with the university's commitment to clear, accurate, and up-to-date information.

## **8.2 Assessment**

Andijan State University demonstrates an intention to provide public information about its study programmes and institutional activities. The publicly available information are coherent, complete, and linguistic consistent. The use for prospective students, external stakeholders, and international partners is given.

The university published all elements of programme- and institution-related information, such as policies and regulations, programme descriptions, intended learning outcomes, and guidance for international students. Furthermore, the linguistic presentation is consistent: all pages are available in Uzbek and in English. This gives access for both local and international audiences and does meet the expected standards of transparency for higher education institutions seeking international engagement.

During the site visit, the expert group was informed that the university's website was undergoing updates, what also reflects a positive development. All relevant documents, regulations, and programme information are published in full and regularly updated. They are accessible in both Uzbek and English to ensure clarity, comparability, and equal access for all stakeholders.

### 8.3 Conclusion

The criterion is fulfilled.

## 9 ESG Standard 1.9: On-going monitoring and periodic review of programmes

**Institutions should monitor and periodically review their programmes to ensure that they achieve the objectives set for them and respond to the needs of students and society. These reviews should lead to continuous improvement of the programme. Any action planned or taken as a result should be communicated to all those concerned.**

### 9.1 Implementation

The development of educational programs is carried out by a commission of university professors and employers. These committees develop educational programs based on qualification requirements and in accordance with professional standards, ensuring that these programs are tailored to the needs of the labour market and society.

When the draft educational programs are developed, they are subject to external examination by independent experts. This review involves obtaining a written expert opinion from specialists who are not part of the Working Group for the development of educational programs. The purpose of the external examination is to assess the content of the curriculum, the description of modules, information about the disciplines, the structure of the program, innovative technologies and teaching methods used in the educational process.

After passing the developmental and external review stages, educational programs are submitted for review and approval at a University Council meeting.

The formation of educational programs also includes the development and approval of elective science catalogues. Known as the "competition science list", these catalogues are an integral part of educational programs and are periodically reviewed and updated to reflect changes in academic landscape and industry requirements. It provides for an in-depth analysis of the labour market, employment prospects and the changing needs of society.

During the academic year, the Department for Quality Control of Education regularly studies the educational areas of 30 departments across 8 faculties, syllabus, subject programs, resources uploaded to the HEMIS education platform, their quality, and students' grading records.

In addition, within the framework of the existing departments of the university, the presence of qualification requirements, curricula, educational programs (syllabus), working curricula, methodological guidelines for independent education, and teaching-methodical complexes are reviewed. It is also examined whether these documents are developed based on the relevant regulatory documents, whether they are used in organizing the educational process, their internal logical consistency, whether the goals and objectives of the subject are clearly stated in the educational programs (syllabus), whether the teaching-methodical complexes are prepared separately for national and Russian groups based on the current regulatory-legal requirements, and whether the syllabi and methodological guidelines for independent education are reviewed in practice by professors with academic degrees.

Staff of the Department for Quality Control of Education monitor whether the final exams are conducted in accordance with current regulatory documents, and whether the exam rooms are supervised by the responsible personnel assigned for the final exams.

It is examined whether the educational process is organized according to the curriculum, the condition of student access to course resources (interactive guides, multimedia, lectures, webinars and online lectures, self-assessment tests, online consultations with professors, virtual laboratories, online seminars, and electronic libraries), the proper formation of lesson schedules, as well as the maintenance of the distance learning platform in the distance learning mode, the quality of uploaded resources, and the condition of student access to the platform.

In order to study the organization of the educational process among students, the adequacy of the material and technical base, the educational and upbringing processes, the teaching of specialized subjects by professors and teachers, and to develop proposals for improving the quality of education, an anonymous survey is conducted twice a year among 1st to 4th-year undergraduate students (full-time, part-time, distance) and master's degree students of 8 faculties of the university.

In this survey, students answer questions regarding the organization of the lesson process (class schedule, control type schedules), the activities of the Registrar's Office, the assessment of the activities of faculty deans and deputy deans, whether the evaluation criteria and credit amounts for subjects taught by professors are being explained by them, the occurrence of missed classes by professors, how classes are conducted, what prevents students from gaining deep and modern knowledge, whether classes are conducted based on modern pedagogical and information technologies, and whether the necessary resources have been uploaded to the HEMIS information system by professors for students' independent use. At the end of

the survey, the data is collected and, based on the collected information, a report is prepared and presented to the university rector.

## 9.2 Assessment

Andijan State University employs a broadly systematic and structured approach to the review, revision, and approval of its study programmes. The different stages of programme development are designed to involve multiple internal and external stakeholders, ensuring that academic quality, relevance, and compliance with national and professional expectations are continuously maintained. At the initial stage, academic staff members contribute their subject-specific and methodological expertise by drafting or revising programme content, learning outcomes, and curriculum structures. Their input ensures that disciplinary developments, pedagogical considerations, and current research findings are appropriately reflected in the programmes.

In addition to this internal academic perspective, the university systematically includes employers and labour-market representatives in the development process. Their feedback helps ensure that professional requirements, evolving skill demands, and current occupational standards within relevant sectors are adequately incorporated. In many cases, these stakeholders provide insights into employability trends, workplace expectations, and practical competencies that graduates should possess, thereby strengthening the alignment between academic preparation and labour-market needs.

Before any study programme is formally adopted, the draft undergoes an external examination by independent experts. This external review serves as a critical quality assurance step, offering an impartial assessment of the programme's relevance, structure, learning outcomes, and methodological soundness. The expert evaluation helps identify gaps or inconsistencies and ensures that the programme meets national and international academic expectations. Following this stage, the revised draft is forwarded to the University Council for final approval. The Council's decision-making role not only safeguards compliance with institutional policies but also provides formal governance oversight.

Alongside these development and approval processes, the university has established mechanisms for ongoing monitoring of programme implementation and academic quality. The Department for Quality Control of Education plays a central role in this regard. It coordinates regular reviews of course syllabi to ensure consistency with approved curricula, monitors ped-

agogical delivery, and oversees adherence to institutional and national standards. The department also supports faculties in documenting and analysing academic activities, thereby helping to identify areas for improvement and ensuring programme relevance over time.

There is a written policy that explicitly governs monitoring and review across all study programs. Currently, responsibilities, timelines, and reporting lines are codified in a single, comprehensive framework, which allows consistent application and transparency. The formal policy specifies the scope of program reviews, the roles of committees and departments, the cadence of evaluations, and the mechanisms for documenting findings and follow-up actions. It also includes formal channels for involving external stakeholders and students and require regular public reporting of outcomes and improvements.

There is a standardized data collection, clear governance, and timely closure of identified actions, thereby strengthening the university's capacity to enhance program quality and alignment with ESG standards and international expectations.

The university should establish a clearly defined cycle for institutional external reviews, ideally within a five- to seven-year period. Such a recurring evaluation framework would ensure that the institution regularly receives independent feedback on its performance, governance, quality assurance, and strategic development. Following each external review, Andijan State University should prepare a comprehensive written follow-up plan that systematically records all recommendations issued by the reviewers. This plan should specify the concrete actions to be undertaken, identify the responsible persons or units, set realistic deadlines, and outline the human and financial resources required for implementation. A structured follow-up plan of this kind would not only support coordinated internal improvement processes but also demonstrate the university's commitment to responsiveness and accountability.

To ensure progress is continuously monitored, the university should review the implementation status of all actions every semester within the relevant committees. These regular progress discussions would make it possible to detect delays or obstacles early and to adjust plans where necessary. In addition, the university should publish a brief public summary of these progress reviews to strengthen transparency and demonstrate accountability towards students, staff, external partners, and the wider public.

Finally, the institution should maintain a central register that tracks all recommendations and conditions arising from external procedures—such as accreditation visits, audits, ministerial inspections, or quality reviews—and documents their implementation status until completion. Such a register would enable systematic follow-up, facilitate reporting to internal and external stakeholders, and support a culture of continuous quality enhancement across the institution.

The criterion is **not fulfilled** because a policy and clear processes of monitoring and review of study programs are missing.

### 9.3 Conclusion

The criterion is **fulfilled**.

**The expert group proposes the following recommendations:**

- The university should define a cycle for institutional external review within a period of five to seven years. After each external evaluation, Andijan State University should produce a written follow up plan that lists the recommendations, the actions to be taken, the responsible owners, deadlines, and the resources required.
- The university should reviewed progresses each semester at the relevant committees, and a short public summary should be published to demonstrate transparency and accountability.
- The university should maintain a register that tracks recommendations and conditions from all external procedures and shows their status until closure.

## 10 ESG Standard 1.10: Cyclical external quality assurance

**Institutions should undergo external quality assurance in line with the ESG on a cyclical basis**

### 10.1 Implementation

Andijan State University ensures that its educational programs comply with the requirements of external regulatory bodies and standards. Accredited educational programs participate in the rating of educational programs conducted by the State Inspectorate for Quality Control of Education under the Cabinet of Ministers of the Republic of Uzbekistan. The results of these ratings provide valuable insights into the quality and effectiveness of educational programs, guiding the university in maintaining and improving its offerings.

The places in the rating of educational programs depend on such indicators as the composition of students, the results of students' education and the number of educational programs implemented at the university, the composition of the teaching staff, scientific and innovative work, international cooperation and the results of graduate employment.

The university was accredited by the State Inspectorate for Quality Control of Education under the Cabinet of Ministers of the Republic of Uzbekistan and received a certificate with an accreditation period of 04.08.2021 - 04.08.2026.

## **10.2 Assessment**

Andijan State University applies a generally systematic approach to the review, revision, and approval of its study programmes. The process typically involves academic staff, who contribute their subject-specific expertise, as well as employers and representatives from the labour market, ensuring that professional requirements and evolving occupational standards are taken into account. Draft programmes undergo external examination by independent experts before being submitted to the University Council for final approval, providing an additional layer of quality assurance and external validation. In parallel, the university maintains mechanisms for ongoing monitoring through the Department for Quality Control of Education, which coordinates regular reviews of course syllabi and oversees the academic processes implemented across the faculties. These combined measures demonstrate a clear institutional commitment to aligning educational programmes with labour-market needs, professional expectations, and stakeholder feedback, and they form an essential foundation for sustained quality enhancement and continuous improvement.

Andijan State University participates in national external procedures at programme level and has shown interest in international cooperation. The university does not yet operate a defined cycle for institutional level external review, and the integration of external recommendations into internal planning and budgeting is not described consistently.

## **10.3 Conclusion**

The criterion is **fulfilled**.

#### IV Recommendation to the Accreditation Commission of ACQUIN

##### 1 **Assessment of compliance the Standards and Guidelines in the Higher European Area (ESG) in the actual official version and the German Council of Science and Humanities (WR)**

The study programmes “**Physics**” – Bachelor’s, “**Physics of Semiconductors**” – Master’s, “**Chemistry**” - Bachelor’s/Master’s, “**Information Security**” – Bachelor’s/Master’s, “**Biology**” Bachelor’s/Master’s, “**Mathematics**” – Bachelor’s /Master’s and “**Economics**” – Bachelor’s were assessed on the basis of the "Standards and Guidelines for Quality Assurance in the European Higher Education Area" (ESG), and the national or other relevant regulations.

The expert group concludes that the **ESG standards** 1.1 (Policy for quality assurance), 1.2 (Design and approval of programmes), 1.3 (Student-centred learning, teaching and assessment ), 1.4 (Student admission, progression, recognition and certification), 1.5 (Teaching staff), 1.6 (Learning resources and student support), 1.7 (Information management), 1.8 (Public information), 1.9 (On-going monitoring and periodic review of programmes) and 1.10 (Cyclical external quality assurance) are **fulfilled**.

The assessment criteria are as follows:

**Standard 1.1 Policy for quality assurance:** Universities have a publicly accessible quality assurance strategy, which is part of their strategic management. This strategy is developed and implemented by internal stakeholder representatives through appropriate structures and processes, involving external stakeholders.

The criterion is **fulfilled**.

**Standard 1.2 Design and approval of programmes:** Universities have procedures for the design and approval of their courses. The courses are designed in such a way that their objectives, including the desired learning outcomes, can be achieved. The qualification obtained during a degree program is clearly defined and communicated; it refers to the corresponding level of the national qualifications framework for higher education and, consequently, the qualifications framework for the European Higher Education Area.

The criterion is **fulfilled**.

**Standard 1.3 Student-centred learning, teaching and assessment:** Universities ensure that the courses offered are carried out in such a way as to encourage students to play an active role in the design of the learning process and that this approach is also taken into account when assessing students / examinations.

The criterion is **fulfilled**.

**Standard 1.4 Student admission, progression, recognition and certification:** Universities ensure that the courses offered are carried out in such a way as to encourage students to play an active role in the design of the learning process and that this approach is also taken into account when assessing students / examinations.

The criterion is **fulfilled**.

**Standard 1.5 Teaching staff:** Universities ensure the competence of their teachers. They use fair and transparent procedures for the recruitment and further training of their employees.

The criterion is **fulfilled**.

**Standard 1.6 Learning resources and student support:** The university has adequate funding to finance study and teaching and ensure that there is always a sufficient and readily available range of learning and support available for their studies.

The criterion is **fulfilled**.

**Standard 1.7 Information management:** Universities ensure that they collect, analyze and use the relevant data relevant to the successful conduct of studies and other activities.

The criterion is **fulfilled**.

**Standard 1.8 Public information:** Universities publish easily understandable, correct, objective, up-to-date and well-accessible information about their activities and courses of study.

The criterion is **fulfilled**.

**Standard 1.9 On-going monitoring and periodic review of programmes:** Universities are constantly monitoring their courses and regularly reviewing them to ensure that they achieve the goals set and meet the needs of students and society. The tests lead to a continuous improvement of the courses. All affected parties will be informed about any measures planned or resulting from this.

The criterion is **fulfilled**.

**Standard 1.10 Cyclical external quality assurance:** Universities regularly undergo external quality assurance procedures in accordance with the ESG.

The criterion is **fulfilled**.

## 2 Accreditation Recommendation

The peer-review experts recommend the following **recommendations for the study programme „Physics” – Bachelor’s, “Physics of Semiconductors” – Master’s, “Chemistry” – Bachelor’s/Master’s, “Information Security” – Bachelor’s/Master’s, “Biology” Bachelor’s/Master’s, “Mathematics” – Bachelor’s /Master’s and “Economics” – Bachelor’s.**

### General recommendations

1. Andijan State University should approve and publish an integrated policy for quality assurance that is binding for all units, available in the three working languages, and explicitly linked to the university mission and strategy.
2. The university should define a yearly quality plan at institutional, faculty, and programme level and should report on progress at the end of each cycle.
3. Responsibilities for quality assurance should be mapped and documented so that central units, faculties, departments and programme leaders understand their roles, with students and external stakeholders engaged through standing committees and advisory boards.
4. The policy should cover academic integrity, freedom of expression in teaching and research, non discrimination, complaints and appeals, and the quality assurance of collaborative and transnational provision.
5. The university should publish a yearly quality report that summarises findings, actions, and improvements.
6. The university should also ensure that the learning objectives of the courses and the learning objectives of the reviewed degree programme are clearly described and coordinated with each other. There should be a mapping of formats of assessment to learning outcomes.
7. A policy for the support of students with special needs, including disabilities, should be developed and implemented.
8. The University should develop and define conditions and regulation covering the student progression.
9. English proficiency among student and academic staff should be considered a core requirement to facilitate international collaboration and improve student support services.
10. Student advisors should be allocated to support students in their academic journey.

11. The library should expand the access to English media, publication, catalogues and to scientific journals.
12. A digital learning management system should be implemented for all reviewed programmes.
13. Andijan State University should adopt a university wide information management approach that defines a single source of truth for student and programme data and that integrates quality assurance evidence.
14. The university should establish a data governance charter with clear roles for ownership, stewardship, and review. A standard data dictionary should describe the meaning of key indicators.
15. Regular dashboards should present progression, retention and completion, student feedback including workload, graduate destinations, employer feedback, and the status of audit and review actions.
16. The university should implement a formal tracer study that reaches every graduating cohort within one year and a second follow up after three years. Employer surveys should be run to inform programme relevance.
17. Learning analytics should be used to create an early warning process that supports students proactively through academic advising and targeted support. All reports should include a short narrative explaining how the findings will be used in planning and resource allocation.
18. The university should define a cycle for institutional external review within a period of five to seven years. After each external evaluation, Andijan State University should produce a written follow up plan that lists the recommendations, the actions to be taken, the responsible owners, deadlines, and the resources required.
19. The University should review quality progresses each semester each semester at the relevant committees, and a short public summary should be published to demonstrate transparency and accountability. The university should maintain a register that tracks recommendations and conditions from all external procedures and shows their status until closure.

**Recommendations for study programme “Physics” - Bachelor’s and Master’s**

1. The University should invest into the laboratory equipment for Bachelor Physics courses.

**Recommendations for study programme „Chemistry“ - Bachelor’s and Master’s**

2. A clear and coherent course progression and defined prerequisites should be implemented.
3. The course titles and the course content should be clearly related and coordinated.
4. The curriculum should broad up related to contemporary topics such as green chemistry, computational chemistry, and industrial applications,
5. The Pedagogical training should be expand related to theory and innovative teaching methods for the preparation of competent educators.
6. The faculty’s research focus is currently narrow, concentrating predominantly on natural product chemistry; diversification into other contemporary and applied areas of chemical research would enhance academic breadth and relevance.
7. There should be curricular revision to enhance sequencing, content relevance, pedagogical integration, research diversity, and lab safety.
8. The University should expand of career guidance, institutional networks, job placement services, and partnerships with industry to broaden graduate opportunities and promote professional growth beyond academia.
9. Student workload for laboratory sessions should be described clearly.

**Recommendations for study programme „Biology“ - Bachelor’s and Master’s**

10. The University should deliver documentation for the design and approval process degree programs in a comprehensible and publicly accessible form.

**Recommendations for study programme „Information Security“ - Bachelor's and Master's**

11. The University should compile and verify CVs for all academic staff involved in the Information Security programme and maintain a central staff database with documented cybersecurity qualifications and expertise to ensure accreditation readiness.
12. The University should implement a formal plagiarism monitoring system, including anti-plagiarism software and clear academic integrity policies for all core and project-based assessments.
13. The University should establish formal stakeholder engagement mechanisms (students, employers, alumni, external partners) integrated into programme design and quality assurance cycles, with defined reporting and accountability.
14. The University should implement a formal data collection and analytics framework, including dashboards to monitor metrics such as staff-to-student ratios, cybersecurity staff certifications, industry collaborations, and student outcomes, and use results to inform planning.
15. The University should rebalance the Information Security curriculum to ensure core domains (governance, risk management, compliance, security policies, regulatory frameworks) are included as mandatory courses, with electives for broader topics like AI/ML and data analysis, and align with international cybersecurity standards.

**Recommendations for study programme „Mathematics“ - Bachelor's and Master's**

16. The University should establish a formal academic advising system to support students' academic development, mobility, and career planning.
17. The University should broaden interdisciplinarity by offering minor or double major options with related fields and by enabling cross-department electives beyond Ministry-defined offerings to enhance learning and student mobility.
18. The University should implement structured stakeholder involvement in programme evaluation, benchmark against the National Qualifications Framework, and establish a gender policy, complemented by continuous semester-by-semester evaluation and feedback loops.

**Recommendations for study programme „Economy“ - Bachelor's**

19. The integration of external stakeholders, mainly alumni and employers, into program design and monitoring the program should be expanded to strengthen labour market relevance.
20. The information management system could be more systematically track graduate employability and employer feedback, feeding this data back into curriculum improvement.
21. The university also could further expand structured pedagogical training for teaching staff which is supported professional development, to insure continuously adapted modern and student-centered teaching practices.

## **V Decisions of the Accreditation Commission of ACQUIN**

Based on the evaluation report of the expert group and the statement of the Higher Education Institution, the Accreditation Commission of ACQUIN decided on its meeting on the 01 December 2025:

### **General recommendations for all study programmes:**

- Andijan State University should approve and publish an integrated policy for quality assurance that is binding for all units, available in the three working languages, and explicitly linked to the university mission and strategy.
- The university should define a yearly quality plan at institutional, faculty, and programme level and should report on progress at the end of each cycle.
- Responsibilities for quality assurance should be mapped and documented so that central units, faculties, departments and programme leaders understand their roles, with students and external stakeholders engaged through standing committees and advisory boards.
- The policy should cover academic integrity, freedom of expression in teaching and research, non discrimination, complaints and appeals, and the quality assurance of collaborative and transnational provision.
- The university should publish a yearly quality report that summarises findings, actions, and improvements.
- The university should also ensure that the learning objectives of the courses and the learning objectives of the reviewed degree programme are clearly described and coordinated with each other. There should be a mapping of formats of assessment to learning outcomes.
- A policy for the support of students with special needs, including disabilities, should be developed and implemented.
- The University should develop and define conditions and regulation covering the student progression.
- English proficiency among student and academic staff should be considered a core requirement to facilitate international collaboration and improve student support services.
- Student advisors should be allocated to support students in their academic journey.
- The library should expand the access to English media, publication, catalogues and to scientific journals.
- A digital learning management system should be implemented for all reviewed programmes.
- Andijan State University should adopt a university wide information management approach that defines a single source of truth for student and programme data and that integrates quality assurance evidence.

- The university should establish a data governance charter with clear roles for ownership, stewardship, and review. A standard data dictionary should describe the meaning of key indicators.
- Regular dashboards should present progression, retention and completion, student feedback including workload, graduate destinations, employer feedback, and the status of audit and review actions.
- The university should implement a formal tracer study that reaches every graduating cohort within one year and a second follow up after three years. Employer surveys should be run to inform programme relevance.
- Learning analytics should be used to create an early warning process that supports students proactively through academic advising and targeted support. All reports should include a short narrative explaining how the findings will be used in planning and resource allocation.
- The university should define a cycle for institutional external review within a period of five to seven years. After each external evaluation, Andijan State University should produce a written follow up plan that lists the recommendations, the actions to be taken, the responsible owners, deadlines, and the resources required.
- The University should review quality progresses each semester each semester at the relevant committees, and a short public summary should be published to demonstrate transparency and accountability. The university should maintain a register that tracks recommendations and conditions from all external procedures and shows their status until closure.

### **Physics (Bachelor's degree)**

**The study programme “Physics” (Bachelor's degree) is accredited without any conditions.**

**The accreditation is valid until 30 September 2032.**

The following recommendations are given for the further development of the study programme:

- The University should invest into the laboratory equipment for Bachelor Physics courses.

### **Physics of Semiconductors (Master's degree)**

**The study programme “Physics of Semiconductors” (Master's degree) is accredited without any conditions.**

**The accreditation is valid until 30 September 2032.**

### **Chemistry (Bachelor's degree, Master's degree)**

**The study programmes “Chemistry” (Bachelor's degree, Master's degree) are accredited without any conditions.**

**The accreditation is valid until 30 September 2032.**

The following recommendations are given for the further development of the study programme:

- A clear and coherent course progression and defined prerequisites should be implemented.

- The course titles and the course content should be clearly related and coordinated.
- The curriculum should broad up related to contemporary topics such as green chemistry, computational chemistry, and industrial applications,
- The Pedagogical training should be expand related to theory and innovative teaching methods for the preparation of competent educators.
- The faculty's research focus is currently narrow, concentrating predominantly on natural product chemistry; diversification into other contemporary and applied areas of chemical research would enhance academic breadth and relevance.
- There should be curricular revision to enhance sequencing, content relevance, pedagogical integration, research diversity, and lab safety.
- The University should expand of career guidance, institutional networks, job placement services, and partnerships with industry to broaden graduate opportunities and promote professional growth beyond academia.
- Student workload for laboratory sessions should be described clearly.

#### **Information Security (Bachelor's degree, Master's degree)**

**The study programmes "Information Security" (Bachelor's degree, Master's degree) are accredited without any conditions.**

**The accreditation is valid until 30 September 2032.**

The following recommendations are given for the further development of the study programme:

- The University should compile and verify CVs for all academic staff involved in the Information Security programme and maintain a central staff database with documented cybersecurity qualifications and expertise to ensure accreditation readiness.
- The University should implement a formal plagiarism monitoring system, including anti-plagiarism software and clear academic integrity policies for all core and project-based assessments.
- The University should establish formal stakeholder engagement mechanisms (students, employers, alumni, external partners) integrated into programme design and quality assurance cycles, with defined reporting and accountability.
- The University should implement a formal data collection and analytics framework, including dashboards to monitor metrics such as staff-to-student ratios, cybersecurity staff certifications, industry collaborations, and student outcomes, and use results to inform planning.
- The University should rebalance the Information Security curriculum to ensure core domains (governance, risk management, compliance, security policies, regulatory frameworks) are included as mandatory courses, with electives for broader topics like AI/ML and data analysis, and align with international cybersecurity standards.

**Biology (Bachelor's degree, Master's degree)**

The study programmes “Biology” (Bachelor's degree, Master's degree) are accredited without any conditions.

The accreditation is valid until 30 September 2032.

The following recommendations are given for the further development of the study programme:

- The University should deliver documentation for the design and approval process degree programs in a comprehensible and publicly accessible form.

**Mathematics (Bachelor's degree, Master's degree)**

The study programmes “Mathematics” (Bachelor's degree, Master's degree) are accredited without any conditions.

The accreditation is valid until 30 September 2032.

The following recommendations are given for the further development of the study programme:

- The University should establish a formal academic advising system to support students' academic development, mobility, and career planning.
- The University should broaden interdisciplinarity by offering minor or double major options with related fields and by enabling cross-department electives beyond Ministry-defined offerings to enhance learning and student mobility.
- The University should implement structured stakeholder involvement in programme evaluation, benchmark against the National Qualifications Framework, and establish a gender policy, complemented by continuous semester-by-semester evaluation and feedback loops.

**Economics (Bachelor's degree)**

The study programme “Economics” (Bachelor's degree) is accredited without any conditions.

The accreditation is valid until 30 September 2032.

The following recommendations are given for the further development of the study programme:

- The integration of external stakeholders, mainly alumni and employers, into program design and monitoring the program should be expanded to strengthen labour market relevance.
- The information management system could be more systematically track graduate employability and employer feedback, feeding this data back into curriculum improvement.
- The university also could further expand structured pedagogical training for teaching staff which is supported professional development, to insure continuously adapted modern and student-centered teaching practices.