Annex №4

NATIONAL CENTER FOR EDUCATIONAL QUALITY ENHANCEMENT

Accreditation Expert Group Final Report on Cluster of Higher Education Programmes

Bachelor of Informatics (English) and Master of Computer Science (Georgian)

Akaki Tsereteli State University

Evaluation Date(s): 10-11 September 2025

Report Submission Date: 29 September 2025

Tbilisi

Information on the Higher educational Institution

Name of Institution Indicating its Organizational Legal Form	Akaki Tsereteli State University
Identification Code of Institution	212693049
Type of the Institution	University

Expert Panel Members

Chair (Name, Surname, HEI/Organization, Country)	Seifedine Kadry, Noroff-Norway and LAU-Lebanon
Member (Name, Surname, HEI/Organization, Country)	Tamta Tskhovrebadze, International Black Sea University, LLC, Georgia
Member (Name, Surname, HEI/Organization, Country)	Giorgi Iashvili, LTD - Business and Technology University, Georgia
Member (Name, Surname, HEI/Organization, Country)	Nino Jolia, LTD Caucasus International University, Georgia

I. Information on the Cluster of Educational Programmes

	Programme 1	Programme 2
Name of the educational programme In Georgia	კომპიუტერული მეცნიერება	კომპიუტერული მეცნიერება
Name of the educational programme In English	Computer Science	Computer Science
Level of higher education	Bachelor's Studies	Master's Studies
Qualification to be awarded	Bachelor of Informatics	Master of Computer Science
Name and code of the detailed field	Software and Applications Development and Analysis - 0613	Software and Applications Development and Analysis - 0613
Indication of the right to provide teaching of subject/subjects/group of subjects of the relevant level of general education[1]		
Language of instruction	English	Georgian
Number of ECTS credits	240	120
Programme Status (Accredited/Non-accredited/Conditionally Accredited/New/International Accreditation) Indicating Relevant Decision (number, date)	New	Accredited Accreditation Council Decision N 1172267, 27.09.2022

[1] In case of Integrated Bachelor's-Master's Teacher Training Educational Programme and Teacher Training Educational Programme

II. Accreditation Report Executive Summary

- **General Information on the Cluster of Education Programmes**

At ATSU university, the Georgian-language Bachelor's Program in Computer Science has been offered since 2011, reaccredited in 2021, and awards a Bachelor of Informatics. Built on the ECTS system, it provides a solid foundation in computer science. Drawing on this program and responding to modern field challenges and student feedback, an English-language Bachelor's Program in Computer Science was developed. It includes additional mandatory and elective courses, qualified faculty, a strong technical base, and English-language resources. The program also emphasizes internationalization through national and international projects and English-language training opportunities.

The English-language bachelor's program, aligned with Georgia's National Qualifications Framework (NQF) and ICT sector benchmarks, carries 240 ECTS credits: 200 compulsory, 30 elective, and 10 free component credits. Its structure ensures logical progression, competency development, and practical training through professional practice. Adequate staffing guarantees quality teaching, research, and program delivery.

The Master's Program in Computer Science was updated for reaccreditation to align with the NQF and ICT field benchmarks, fully meeting the descriptor of "Computer Science – 0613." It comprises 120 ECTS credits: 100 compulsory (including a 30-credit thesis) and 20 elective credits. The program fosters gradual competency development and requires students to engage in supervised research culminating in a thesis defense. The academic and invited staff ensure successful implementation of teaching, research, and related responsibilities.

- **Overview of the Accreditation Site Visit**

The evaluation of the program was carried out on September 10-11, 2025, by the expert panel approved by the order of the NCEQE. The format of the evaluation was physical, with Georgian experts and representatives of the institution attending interviews on-site, as well as the chair of the panel from abroad. Accreditation experts held a preliminary meeting online on September 3, where they shared their preliminary findings based on the review of the program, self-evaluation report, and relevant annexes and planned the details of the evaluation. The expert panel had the chance to meet all internal and external stakeholders of the program and observe material-technical resources. Namely, the expert panel held interviews with the university and faculty administration, self-evaluation team, representatives of the quality assurance office, heads of the program grouped in a cluster, academic and invited staff of the program, students and alumni of the program, and employers. The Accreditation visit was well organized, and the working environment was collaborative and welcoming.

- **Brief Overview of Education Programme Compliance with the Standards**

Programme 1 (Computer Science, BS)

Standard 1: Substantially Complies with Requirements

·Substandard 1.1, 1.2, 1.5 Substantially Complies with Requirements

·Substandard 1.3, 1.4 Complies with Requirements

Standard 2: Complies with Requirements

·Substandard 2.1-2.4 Complies with Requirements

Standard 3: Complies with Requirements

·Substandard 3.1, 3.2 Complies with Requirements

Standard 4: Complies with Requirements

·Substandard 4.1, 4.2, 4.4, 4.5 Complies with Requirements

·Substandard 4.3 Substantially Complies with Requirements

Standard 5: Complies with Requirements

·Substandard 5.1-5.3 Complies with Requirements

Programme 2 (Computer Science, MS)

Standard 1: Substantially Complies with Requirements

·Substandard 1.1, 1.5 Substantially Complies with Requirements

·Substandard 1.2, 1.3, 1.4 Complies with Requirements

Standard 2: Complies with Requirements

·Substandard 2.1, 2.3, 24 Complies with Requirements

·Substandard 2.2 Substantially Complies with Requirements

Standard 3: Complies with Requirements

·Substandard 3.1, 3.2 Complies with Requirements

Standard 4: Complies with Requirements

·Substandard 4.1, 4.2, 4.3, 4.4, 4.5 Complies with Requirements

Standard 5: Complies with Requirements

· Substandard 5.1-5.3 Complies with Requirements

▪ Recommendations

1.1 - Programme Objectives

Programme 1 (Computer Science, BS)

It is recommended to reformulate the objectives using appropriate verbs.

1.2 Programme Learning Outcomes

Cluster

The program learning outcomes need reformulation to be measurable and align with the program level.

1.5. Academic Course/Subject

Cluster

Strengthen course content by integrating recent research papers, ACM/IEEE standards, and global best practices, particularly at the bachelor's level.

Adjust the ratio of contact and independent hours to better reflect the complexity and demands of individual courses.

Clarify the distinction between bachelor's and master's syllabi in overlapping areas by emphasizing research-oriented and advanced topics at the master's level.

2.2. The Development of Practical, Scientific/Research/Creative/Performing and Transferable Skills

Programme 2 (Computer Science, MS)
The university should intensify the integration of students into scientific and research projects to ensure that the outcomes of Master's theses consistently demonstrate originality, advanced research skills, and the ability to address complex problems in line with programme requirements.

▪ Suggestions

1.1 - Programme Objectives

Cluster:

Add more explicit articulation of internationalization aspects beyond graduate competitiveness.

1.3 Evaluation Mechanism of the Programme Learning Outcomes Evaluation

Programme 1 (Computer Science, BS)
The 4-year evaluation cycle for the bachelor's program may be too long to capture emerging issues in a timely manner; interim monitoring (annual or biennial) could provide earlier feedback.

2.1 Programme Admission Preconditions

Programme 1 (Computer Science, BS)
While requirements ensure general readiness, the program could consider introducing additional orientation or bridging courses for entrants from diverse educational backgrounds, especially international students. Internationalization of admission processes could be strengthened through more systematic recognition of international qualifications and active promotion to attract foreign applicants.

Programme 2 (Computer Science, MS)
While exam formats are described, the evaluation rubrics and transparency of grading could be elaborated to strengthen evidence of fairness.

2.4. Student Evaluation

Programme 1 (Computer Science, BS)
It is suggested to introduce practical assignments and projects alongside exams to better assess student skills.

Programme 2 (Computer Science, MS)
It is suggested to incorporate formative interim assessments during the thesis development process, primarily conducted by the supervisor, to provide ongoing guidance and early feedback without affecting the final summative evaluation.

3.1 Student Consulting and Support Services

Cluster
It is suggested to provide regular training for academic and career advisors to keep them updated on best practices, labor market trends, and diverse student needs.

3.2. Master's and Doctoral Student Supervision

Cluster
To further enhance the quality of master's thesis supervision, the programme may wish to consider organizing optional methodological workshops or seminars for both students and supervisors, focused on research design, academic writing, and ethical standards in research..

4.1 Human Resources

Cluster
Establish clear criteria or KPIs for scientific and research activity to ensure more systematic monitoring of academic staff performance.
Continue supporting the expansion of English-language instruction, in line with the institution's internationalization goals.

4.2 Qualification of Supervisors of Master's and Doctoral Students

Cluster
Encourage supervisors to make fuller use of the institution's incentives for research and publishing, thereby enhancing their scientific activity and supervision quality.
Strengthen the matching process between thesis topics and supervisors' expertise to ensure closer alignment and deeper academic support for students.

4.3 Professional Development of Academic, Scientific and Invited Staff

Cluster
Continue fostering international cooperation and participation in conferences, while expanding targeted training opportunities to further strengthen staff competences. The university could take further steps to motivate staff to make fuller use of research and publication incentives, thereby reinforcing the research dimension of the programmes.

4.4. Material Resources

Cluster
Ensure the timely completion of computer laboratory renovations to restore full access for students.

Programme 2 (Computer Science, MS)
Provide electronic access to Master's theses in the library to facilitate wider use of research outputs.

- **Brief Overview of the Best Practices (if applicable)**[2]

- **Information on Sharing or Not Sharing the Argumentative Position of the HEI**
  The university shares our findings.

[2] A practice that is exceptionally effective and that can serve as a benchmark or example for other educational programme/programmes.

- **In case of re-accreditation, a brief overview of significant achievements and/or progress (if applicable) during the accreditation period, as well as a review of the fulfillment of the recommendations received during the previous evaluation process**

Following the 2022 reaccreditation, the Faculty of Exact and Natural Sciences and the program head conducted interim monitoring and a SWOT analysis of the Master's program in Computer Science. Learning resources were verified in collaboration with the library, and internationalization efforts were strengthened through national and international projects.

Student Evaluation Standards

Clear evaluation thresholds were set:

- Students may take the final exam only if they achieve at least 20 points from interim assessments (with 12 points minimum from activity).
- At the final exam, a minimum of 16 points is required (Faculty Council Resolution #3, 19.10.2021).

Program Improvements

Several curriculum and structural updates were introduced in line with accreditation feedback and field challenges:

- Program goals aligned with learning outcomes.
- Mathematical Modeling and Artificial Intelligence enriched with advanced mathematics.
- Fundamentals of Scientific Research and Seminar in Computer Science merged into a single integrated course.
- System Security and Protection became mandatory, now covering integrity, accessibility, and antivirus integration (Windows Defender).
- OOP 1 and OOP 2 merged into one "Object-Oriented Programming" course.
- Theoretical Informatics added as a mandatory second-semester course.
- Foreign Language (English) removed, as B2 English certification became an admission prerequisite.
- New electives introduced: Windows – Application Programming (II semester) and Compilers (III semester).
- Artificial Intelligence expanded to include machine learning topics; course credits increased to 7.

Additionally, evaluation systems were standardized across all courses, and teaching materials were enriched with new literature.

Student Opportunities

The program strengthened academic mobility. For instance, in 2023, master's student Bachana Saghinadze participated in an exchange program at the National Institute of Applied Sciences, Rennes, France.

Definitions:

Recommendations - should be considered by the HEI in order to comply the programme with the requirements of the standard
Suggestions - non-binding suggestions for the programme development

Evaluation approaches for the accreditation experts:

The components of the accreditation standards are evaluated using the following two approaches: cluster and if necessary individual evaluation.

Evaluation Approaches:
Cluster evaluation: Describe, analyse, and evaluate the compliance of educational programmes grouped in the cluster with the requirements of the corresponding component of the standard taking into account the general characteristics of the cluster.
Individual evaluation: If necessary, also you can indicate the information on each individual education programme, distinguished from the general and major characteristics of the education programmes in a cluster. Conducting an individual evaluation of the program is essential for doctoral-level educational programs, as well as for any other educational program that is subject to a recommendation and/or suggestion.

III. Summary Table of Compliance of the programmes with the standards

№	Contents/ Standard	Programme 1 (Computer Science, BS)	Programme 2 (Computer Science, MS)
1.	**Educational Programme Objectives, Learning Outcomes and their Compliance with the Programme**	**Substantially complies with the requirements**	**Substantially complies with the requirements**
1.1	Programme Objectives	Substantially complies with the requirements	Complies with the requirements
1.2	Programme Learning Outcomes	Substantially complies with the requirements	Substantially Complies with the requirements
1.3	Evaluation Mechanism of the Programme Learning Outcomes	Complies with the requirements	Complies with the requirements
1.4	Structure and Content of Educational Programme	Complies with the requirements	Complies with the requirements
1.5	Academic Course/Subject	Substantially complies with the requirements	Substantially complies with the requirements
2.	**Methodology and Organization of Teaching, Adequacy of Evaluation of**	**Complies with the requirements**	**Complies with the requirements**

	Programme Mastering		
2.1	Programme Admission Preconditions	Complies with the requirements	Complies with the requirements
2.2	The Development of Practical, Scientific/Research/ Creative/ Performance and Transferable Skills	Complies with the requirements	Substantially complies with the requirements
2.3	Teaching and Learning Methods	Complies with the requirements	Complies with the requirements
2.4	Student Evaluation	Complies with the requirements	Complies with the requirements
3.	**Student Achievements and Individual Work with Them**	**Complies with the requirements**	**Complies with the requirements**
3.1	Student Consulting and Support Services	Complies with the requirements	Complies with the requirements
3.2	Master's and Doctoral Student Supervision	Complies with the requirements	Complies with the requirements
4	**Providing Teaching Resources**	**Complies with the requirements**	**Complies with the requirements**
4.1	Human Resources	Complies with the requirements	Complies with the requirements
4.2	Qualification of Supervisors of Master's and Doctoral Student	Complies with the requirements	Complies with the requirements
4.3	Professional Development of	Complies with the requirements	Complies with the requirements

	Academic, Scientific and Invited Staff		
4.4	Material Resources	Complies with the requirements	Complies with the requirements
4.5	Programme/Faculty/School Budget and Programme Financial Sustainability	Complies with the requirements	Complies with the requirements
5	**5. Teaching Quality Enhancement Opportunities**	**Complies with requirements**	**Complies with requirements**
5.1	Internal Quality Evaluation	Complies with requirements	Complies with requirements
5.2	External Quality Evaluation	Complies with requirements	Complies with requirements
5.3	Programme Monitoring and Periodic Review	Complies with requirements	Complies with requirements

IV. Compliance of the Programme with Accreditation Standards

1. Educational Programme Objectives, Learning Outcomes and their Compliance with the Programme

A programme has clearly established objectives and learning outcomes, which are logically connected to each other. Programme objectives are consistent with the mission, objectives and strategic plan of the institution. Programme learning outcomes are assessed on a regular basis to improve the programme. The content and consistent structure of the programme ensure the achievement of the set goals and expected learning outcomes.

Educational programmes grouped in a cluster are logically interrelated to each other in line with the study fields and evolve according to the respective levels of higher education.

1.1 Programme Objectives

Accreditation standards indicators

Programme objectives consider the specificity of the field of study, level and an educational programme, and define the set of knowledge, skills and competences a programme aims to develop in graduate students. They also illustrate the contribution of the programme to the development of the field and society.

Summary and Analysis of the Compliance of the Educational Programmes Grouped in a Cluster with the Requirements of the Standard Component

Cluster evaluation

Description and Analysis of Cluster

The cluster of Computer Science programs at Akaki Tsereteli State University (ATSU) demonstrates alignment with the institutional mission of delivering high-quality education, fostering regional development, and meeting societal and labor market needs. The cluster description emphasizes the wide applicability of computer technologies across sectors such as education, banking, telecommunications, transport, and production, which reflects an accurate assessment of labor market demands both locally and internationally.

The majority of the program objectives across the cluster are realistic, achievable, and field-specific, as they focus on preparing specialists with strong theoretical foundations and practical skills. The link between cluster goals and the development strategy of ATSU is well established: training professionals who will contribute to the technological and economic development of the region is directly tied to the university's mission of societal contribution.

Internationalization is addressed through recognition of global labor market needs and the possibility for graduates to continue studies at the master's level. However, explicit mechanisms for integrating international perspectives (e.g., mobility opportunities, partnerships, or English-language components) are less clearly articulated at the cluster level and could be strengthened.

Accessibility is adequately ensured: program objectives are posted online, and program information is transparent to stakeholders. There is also evidence that objectives are shared by program implementers, as reflected in alignment with university strategic goals.

Individual evaluation -

Description and Analysis - Programme 1 (Computer Science, BS)[3]

The Bachelor's Program in Computer Science at Akaki Tsereteli State University sets objectives that are broadly consistent with both the institutional mission and the development strategy of the university. The program is designed to produce graduates who are capable of designing, developing, and applying computer technologies across a wide spectrum of sectors such as education, banking, telecommunications, and production. This aligns well with the university's responsibility to contribute to the development of the region and the wider society.

To make the program objectives more realistic and reflect what knowledge, skills and competences the programme aims to develop in graduate students, we recommend the following formulation by changing some verbs:

The Bachelor's Program in Informatics aims to (1) prepare graduates who are able to design, develop, and apply modern computer technologies. (2) They will demonstrate ethical responsibility in addressing societal challenges in computing, and (3) will cultivate a commitment to lifelong learning, enabling them to pursue advanced studies or adapt to emerging technologies in informatics.

The objectives, as revised, are clearly formulated, realistic, and achievable. They emphasize three dimensions of graduate development: (1) the acquisition of technical expertise in computer technologies, (2) the ability to critically evaluate social and ethical implications of informatics and act responsibly, and (3) a demonstrable commitment to lifelong learning. By articulating the objectives in measurable terms, the program avoids the risk of relying on vague verbs such as "understand" or "be aware," which are not assessable under accreditation standards. Instead, the new phrasing ensures that the objectives can be observed and verified through graduate performance and assessment tools.

The program makes a direct contribution to the development of the field and society, as graduates are prepared not only for immediate employment in diverse IT roles (software developer, systems analyst, IT service specialist, etc.) but also for progression to higher levels of study. The broad applicability of computer technologies in the Georgian and international labor markets underscores the relevance and sustainability of the program's objectives.

Description and Analysis - Programme 2 (Computer Science, MS)

The programme objectives are formulated in a clear and concise manner, outlining the intended preparation of highly qualified specialists, development of advanced competencies, and ability to conduct research and practical activities. The goals are realistic and consistent with the

[3] Please repeat the description and analysis field according to the number of programmes, for example, programme 2 (name, cycle), programme 3 (name, cycle) and so on. (Please consider this reference format when evaluating each subsequent component).

expected outcomes of a second-cycle (Master's) programme. Their achievability is evidenced by the reported successful employment of graduates from the Georgian-language equivalent program. The stated aims do not overreach the scope of a Master's degree and remain well-aligned with what can be realistically attained within a 120-ECTS programme.

The objectives correspond to the **Computer Science** discipline by emphasizing modern, in-depth knowledge, research skills, analytical capabilities, and the capacity to address contemporary challenges in the field. They reflect typical second-cycle expectations such as autonomy, critical analysis, and professional responsibility. The focus on research potential and practical application indicates an understanding of both disciplinary specificity and the advanced level of the programme.

The stated goals explicitly highlight the development of:

- Knowledge: modern, in-depth, up-to-date understanding of computer science and its challenges.
- Skills: research skills, practical problem-solving, analytical abilities, and transferable skills for competitiveness in the labor market.
- Competences: autonomy, responsibility, critical judgment, and the ability to contribute to professional and societal development.

These elements are clearly present in the objective statements, demonstrating alignment with the triad of knowledge–skills–responsibility/autonomy defined in the NQF for Master's level.

The objectives emphasize preparing graduates who can "contribute to the development of the field and society," highlighting the programme's intention to generate professionals capable of disseminating knowledge, supporting innovation, and responding to sectoral challenges. This indicates a commitment to broader societal and sectoral advancement, which aligns with EQE expectations for demonstrating public relevance and impact.

The language of the objectives—focusing on producing competitive professionals, supporting research activities, and fostering societal contribution—is typically aligned with university missions regarding academic excellence, research promotion, and societal engagement. The consistency is implicitly supported through statements indicating that the objectives are developed as part of institutional methodology and strategic planning frameworks.

The programme explicitly states that graduates will be "highly competitive both locally and internationally." This phrasing indicates an awareness of labor market demands beyond the national context. The emphasis on modern knowledge, practical competencies, and transferable skills reflects the skills profile demanded by employers in the global ICT and computer science sectors. The inclusion of labor market considerations is therefore sufficiently visible, although the analysis could further strengthen this by referencing specific studies or industry consultations.

The objectives include explicit reference to global competitiveness, modern challenges, and the development of skills that enable graduates to operate in international environments. While not framed as a standalone internationalization strategy, the objectives implicitly integrate international relevance by orienting learning outcomes toward global standards and market conditions. The programme ensures compatibility with global expectations for graduate-level computer science education.

The curriculum and programme goals are posted on the university website, ensuring accessibility to students, applicants, employers, and other stakeholders. This satisfies EQE's requirement that programme objectives be publicly available and easily accessible.

The self-study and interviews indicate that the programme goals are part of the institutional planning methodology and are publicly communicated through the curriculum. The fact that goals are derived from institutional procedures and long-standing departmental practices implies that stakeholders, academic staff and programme implementers are aware of and share the objectives.

Evidences/Indicators

- ATSU Mission: https://atsu.edu.ge/ge/home
- ATSU Strategic Development Plan: https://atsu.edu.ge/index.php/strategic-plan-geo
- ATSU Faculty of Exact and Natural Sciences Strategic Plan: https://atsu.edu.ge/index.php/exact-strategic-plan-geo
- English-language Bachelor's educational program in "Computer Science".
- Master's educational program in "Computer Science".
- Interview results

Recommendations and Suggestions according to the programmes:	**Recommendation(s):** Please, write the developed recommendations that apply equally to the educational programmes grouped in the cluster. Also, please indicate, according to individual programs (if any)	**Suggestion(s):** Please, write the developed suggestions that apply equally to the educational programmes grouped in the cluster. Also, please indicate, according to individual programs (if any)
General recommendations/ Suggestion of the Cluster		Add more explicit articulation of internationalization aspects beyond graduate competitiveness.
Programme 1 (Computer Science, BS)	Reformulated the objectives using appropriate verbs.	
Programme 2 (Computer Science, MS)		

Evaluation [4]

Please, evaluate the compliance of the programme with the component

Component 1.1 - Programme Objectives	Evaluation
Programme 1 (Computer Science, BS)	Substantially complies with requirements
Programme 2 (Computer Science, MS)	Complies with requirements

1.2 Programme Learning Outcomes

Accreditation standards indicators

➢The learning outcomes of the programme are logically related to the programme objectives and the specificity of the field of study.

➢ Programme learning outcomes describe knowledge, skills, and/or sense of responsibility and autonomy which students gain upon completion of the programme.

Summary and Analysis of the Compliance of the Educational Programmes Grouped in a Cluster with the Requirements of the Standard Component

Cluster evaluation

Description and Analysis of Cluster

The learning outcomes across the cluster are clearly formulated in terms of knowledge, skills, and responsibility/autonomy, and they reflect a coherent progression between the bachelor's (NQF Level 6) and the master's (NQF Level 7) cycles. They correspond directly to the aims of the programs and are consistent with the ICT sector benchmarks and the NQF qualification descriptors.

A notable strength is that the cluster's programs are benchmarked against international reference models (e.g., INSA-Rennes, Alexandru Ioan Cuza University), supported by Erasmus+ collaboration and curriculum discussions with European faculty. This demonstrates a deliberate effort to ensure international comparability and to align with sectoral best practices. The outcomes are also linked to labor market needs: bachelor's graduates are prepared for broad IT roles, while master's graduates are expected to engage in research, advanced problem-solving, and professional autonomy. The articulation of outcomes shows content, complexity, and difficulty increasing across cycles, which fulfills EQE requirements for cluster consistency. Areas for improvement cluster-wide include ensuring that all verbs used in outcomes are measurable (e.g., "describes," "explains," "characterizes" are weaker than "analyzes," "applies," "evaluates").

Individual evaluation -

[4] Evaluation is performed for each programme separately.

Description and Analysis - Programme 1 (Computer Science, BS)

The programme learning outcomes clearly correspond to the stated aims of the Bachelor's in Computer Science. The aims mentioned in the self-study—providing a strong foundation in informatics, developing qualified specialists, and preparing graduates for professional practice—are directly reflected in the knowledge, skills, and autonomy outcomes. The PLOs address fundamental theories, programming languages, embedded systems, and modern ICT technologies, all of which are central to the programme's academic purpose and content. The skills related to algorithmic problem-solving, object-oriented programming, modeling, and decision-making further reinforce strong alignment with the programme's academic intent.

The outcomes demonstrate full consistency with the NQF Level 6 qualification descriptor, which requires:

- Broad knowledge of the field
- Ability to apply knowledge in practice
- Analytical and problem-solving skills
- Responsibility and autonomy in professional contexts

The programme outcomes explicitly reflect Level 6 expectations through analytical abilities, software implementation, problem-solving, respectful communication, ethical decision-making, and responsibility for time and tasks. They also match the NQF field descriptor 0613 – Software and Applications Development and Analysis, emphasizing algorithmics, programming, system design, and technology integration.

The programme references the sectoral characteristic of ICT in Georgia, and the outcomes fully reflect ICT benchmarks, including:

- Software development
- Data processing
- Embedded systems
- Cloud technologies
- Cybersecurity
- Computer graphics and visualization

The grounding in ICT-sector requirements is further strengthened by comparisons with European programmes (INSA-Rennes, UIC Iași), ensuring alignment with international benchmarks as well.

The PLOs demonstrate clear alignment with employment trends in the ICT labour market. The focus on programming (C++, Java, Python), decision-making, cybersecurity, cloud systems, and embedded systems reflects strong labour market relevance. These competencies are in high demand among Georgian and international employers.

Furthermore, the emphasis on algorithmic thinking, modeling, and theoretical foundations ensures that graduates are also prepared for advanced studies at the master's level, which require analytical and research-oriented competencies.

Computer Science as a field evolves rapidly. The programme addresses this by including:

- Modern programming languages
- Cloud computing
- Cybersecurity
- Embedded systems
- Computer graphics and visualization

The outcome on *critical self-evaluation and continuous development* shows awareness of the field's dynamic nature. The labour market demand for multi-language programming and system design skills is well addressed.

The description highlights structured collaboration with stakeholders and through Erasmus+ partnerships with INSA-Rennes and UIC Iași. This indicates involvement of international academic stakeholders (Prof. Mireille Ducassé, Prof. Jean-Louis Pazat, Prof. Costan, etc.).

The analysis indicates that the programme is designed according to NQF descriptors and consistent with international programmes in informatics. The Bachelor PLOs are appropriate for Level 6, the evidence of cluster-level consistency is presented. The programme states that individuals involved in implementation provide information about the PLOs.

The PLOs of the program are achievable and realistic; However, the knowledge dimension contains verbs such as "describes," "explains," and "characterizes" that are less measurable in practice. Accreditation standards typically encourage stronger action verbs such as "analyzes," "applies," "compares," or "evaluates". Similarly, the outcome "critically evaluates one's own knowledge and develops himself/herself" could be reframed as "demonstrates capacity for continuous professional development through critical self-assessment."

Recommended Improvements (Before/After)

Knowledge and Understanding

• Before: Describes and explains the fundamental theories and algorithms of informatics.

After: Explains and applies fundamental theories and algorithms of informatics to analyze computing problems.

• Before: Describes the characteristics and capabilities of modern programming languages and methods.

After: Compares and evaluates modern programming languages and methods for solving diverse computing tasks.

• Before: Describes the process of building and optimizing embedded systems.

After: Analyzes and outlines the design and optimization process for embedded systems.

• Before: Characterizes modern information technologies.

After: Evaluates the applicability and limitations of modern information technologies in professional practice.

Skills

- Before: Proficient in computer technologies of computer graphics and visualization, cloud computing and cybersecurity.

After: Applies computer graphics, visualization, cloud computing, and cybersecurity technologies to develop practical solutions.

In terms of employment alignment, the outcomes clearly support roles like software developer, IT specialist, and systems analyst.

Description and Analysis - Programme 2 (Computer Science, MS)

The master's program learning outcomes are well aligned with NQF Level 7 descriptors. They move beyond foundational knowledge into the capacity to conduct research, critically analyze incomplete or complex information, and contribute to the academic and professional community. The emphasis on developing effective algorithms for difficult and complex tasks and on engaging with scientific research and dissemination illustrates appropriate progression from the bachelor's level.

The inclusion of transferable skills such as critical evaluation, planning of independent research, and professional presentation of results reflects international expectations for second-cycle graduates. The outcomes also explicitly address academic ethics and responsibility, which strengthens their alignment with both national and European standards.

The PLOs of the program are achievable and realistic; However, similar to the bachelor's program, some verbs in the knowledge component (e.g., "lists," "identifies," "describes") could be strengthened to better reflect the analytical depth expected at Level 7. More measurable phrasing such as "evaluates data structures," "compares software tools," or "designs database architectures" would demonstrate clearer progression.

Recommended Improvements

Knowledge and Understanding

- "Determines the main concepts, projects and tasks ... evaluates the main trends ..."

Stronger than Bachelor's ("evaluates" adds depth). Suitable for Master's level.

- "Lists standard data structures and selects fundamental methods of information processing."

Weak for Master's: "lists" is too low-level (undergraduate). "Applies" or "designs" would be more appropriate.

- "Identifies modern software tools ... explains their capabilities."

Again, "identifies/explains" = low-level verbs. At Master's, expected to "evaluate," "integrate," or "adapt."

• "Describes the basic principles of constructing databases and building intelligent systems."

Too basic for Master's. Should emphasize "designs," "implements," or "critically evaluates" advanced databases/AI systems.

Example of reformulation:
• Before: Lists standard data structures and selects fundamental methods of information processing.

After: Evaluates and applies advanced data structures and computational methods to optimize information processing in complex contexts.

• Before: Identifies modern software tools for implementing algorithms on a computer and explains their capabilities.

After: Selects, integrates, and critically evaluates modern software tools to implement and optimize algorithms across diverse computing platforms.

• Before: Describes the basic principles of constructing databases and building intelligent systems.

After: Designs and critically assesses advanced database architectures and intelligent systems, considering scalability, performance, and ethical implications.

The outcomes are clearly linked to both employment opportunities in advanced IT roles and the potential to pursue doctoral-level education, thus fulfilling the EQE requirement for enabling next-level study.

Evidences/Indicators

- Bachelor's degree program "Computer Science";
- Master's degree program "Computer Science";
- Map of correspondence between the program objectives and the learning outcomes;
- Analysis of the curriculum map;
- Website of the "National Institute of Applied Sciences" in Rennes, France – https://www.insa-rennes.fr/info.html
- Correspondence with the heads of the departments of computer technology at INSA-Rennes and UIC University;
- Interview results

Recommendations and Suggestions according to the programmes:	Recommendation(s): Please, write the developed recommendations that apply equally to the educational programmes grouped in the cluster. Also, please indicate, according to individual programs (if any)	Suggestion(s): Please, write the developed suggestions that apply equally to the educational programmes grouped in the cluster. Also, please indicate, according to individual programs (if any)
General recommendations/ Suggestion of the Cluster	The program learning outcomes need reformulation to be measurable and align with the program level.	
Programme 1 (Computer Science, BS)		
Programme 2 (Computer Science, MS)		

Evaluation

Please, evaluate the compliance of the programme with the component

Component 1.2 Programme Learning Outcomes	Evaluation
Programme 1 (name, level)	Substantially complies with requirements
Programme 2 (name, level)	Substantially complies with requirements

1.3 Evaluation Mechanism of the Programme Learning Outcomes

Accreditation standards indicators

➢ Evaluation mechanisms of the programme learning outcomes are defined. The programme learning outcomes assessment process consists of defining, collecting and analyzing data necessary to measure learning outcomes.
➢ Programme learning outcomes assessment results are utilized for the improvement of the programme.

Summary and Analysis of the Compliance of the Educational Programmes Grouped in a Cluster with the Requirements of the Standard Component

Cluster evaluation

Description and Analysis of Cluster

The cluster demonstrates a structured and systematic approach to evaluating programme learning outcomes (PLOs), articulated in four stages: formulation, curriculum mapping, assessment, and programme improvement. This cyclical process reflects good practice and is aligned with EQE requirements for consistency, transparency, and continuous improvement.

The use of curriculum maps to link courses with learning outcomes at progressive levels (Introduction, Practice, Mastery) ensures that the program design supports outcome attainment in a cumulative and logical manner. The inclusion of benchmarks for each outcome (4-year cycle for the bachelor's program; 2-year cycle for the master's program) provides a clear timeframe for systematic monitoring.

Evaluation employs both direct and indirect methods, which strengthens validity. Direct evidence (exams, projects, labs, presentations) is complemented by indirect evidence (surveys of students, alumni, employers, employment rates, completion data). This dual approach allows the program to triangulate data and more reliably determine outcome achievement.

Stakeholder involvement is well documented in the formulation stage, where academic staff, students, alumni, and employers contributed to shaping PLOs during accreditation preparation. The text also confirms that external stakeholders are engaged indirectly through surveys and tracer studies. However, ongoing structured involvement of employers and professional associations in reviewing evaluation results could be further institutionalized to demonstrate stronger external validation.

The feedback loop is explicit: results are analyzed by program leaders and academic staff, weaknesses are identified, and curricular changes are planned to address gaps. The requirement that staff receive training in outcome formulation, measurement, and analysis, provided by the university's Quality Assurance Service, is an important strength, ensuring that those implementing the program are familiar with assessment methods and supported in professional development.

Both bachelor's and master's programs have benchmarks (typically: 60-65% of students should achieve ≥71/75 points or ≥80% of maximum grade, depending on outcome)

Finally, transparency is ensured by preparing outcome assessment reports and providing feedback to students on their achievement, strengths, and weaknesses. This closes the loop between assessment and learning improvement.

Suggestion: The 4-year evaluation cycle for the bachelor's program may be too long to capture emerging issues in a timely manner; interim monitoring (annual or biennial) could provide earlier feedback.

Individual evaluation - An individual evaluation of the doctoral educational program or of the educational program for which a recommendation and/or advice is issued.

Description and Analysis - Programme 1 (Name and Level)

Describe, analyse and evaluate the compliance of the doctoral level educational programme, or the educational program for which a recommendation and/or suggestion is issued, with the

requirements of the component of the standard, based on the information collected through the self-evaluation report (SER), the enclosed documents and site-visit.

Evidences/Indicators

- Map of program objectives and learning outcomes,
- Analysis of the curriculum map,
- Plan for assessing program learning outcomes,
- Mechanism for assessing program learning outcomes
- Interview results

Recommendations and Suggestions according to the programmes:	**Recommendation(s):** Please, write the developed recommendations that apply equally to the educational programmes grouped in the cluster. Also, please indicate, according to individual programs (if any)	**Suggestion(s):** Please, write the developed suggestions that apply equally to the educational programmes grouped in the cluster. Also, please indicate, according to individual programs (if any)
General recommendations/ Suggestion of the Cluster		
Programme 1 (Computer Science, BS)		The 4-year evaluation cycle for the bachelor's program may be too long to capture emerging issues in a timely manner; interim monitoring (annual or biennial) could provide earlier feedback.
Programme 2 (Computer Science, MS)		

Evaluation

Please, evaluate the compliance of the programme with the component

Component 1.3 Evaluation Mechanism of the Programme Learning Outcomes	**Evaluation**
Programme 1 (Computer Science, BS)	Complies with requirements

Programme 2 (Computer Science, MS)	Complies with requirements

1.4. Structure and Content of Educational Programme

Accreditation standards indicators

➢ The programme is designed according to HEI's methodology for planning, designing and developing of educational programmes.
➢ The programme structure is consistent and logical. The content and structure ensure the achievement of the programme learning outcomes. The qualification to be awarded is corresponding to the programme content and learning outcomes.

Summary and Analysis of the Compliance of the Educational Programmes Grouped in a Cluster with the Requirements of the Standard Component

Cluster evaluation

Description and Analysis of Cluster

The Computer Science programs in the cluster are developed in compliance with national and institutional regulations: the National Qualifications Framework (NQF), the Classifier of Fields of Study, sectoral benchmarks in Computer Science, and ATSU's Educational Programs Quality Assurance Policy. This alignment demonstrates that the cluster adheres to the HEI's approved methodology for planning, designing, and developing programs.

The structure and content of the programs are consistent and logical. Each program integrates admission preconditions, program objectives, learning outcomes, teaching/learning methods, assessment procedures, and areas of employment into a coherent whole. The ECTS system is applied correctly, with 1 credit = 25 hours of student workload. Programs progress in a structured way, where prerequisites and sequencing of courses ensure that students move from introductory to advanced learning outcomes.

The programs also reflect stakeholder engagement in design, with input from academic staff and external stakeholders during program formation. This collaborative approach supports relevance and responsiveness to both academic and labor market expectations.

Individual evaluation

Description and Analysis - Programme 1 (Computer Science, BS)

The description indicates that the program structure—240 ECTS distributed logically across 8 semesters with detailed categories of compulsory and elective courses—follows the HEI's established methodology for educational programme development. The systematic credit allocation (core compulsory, core electives, and free components) demonstrates adherence to institutional rules for planning and designing programmes. The program appears to follow the standard internal framework used at the university to ensure consistency and academic rigor.

With a total of 240 ECTS, spread across 4 years, the program meets the standard volume for a first-cycle (Bachelor's) degree as defined in Georgian higher education and the Bologna Process.

The distribution of core, elective, and free courses ensures progressive complexity: foundational courses in early semesters extend into advanced core modules and specialization-relevant electives later. This structure corresponds to the cognitive, practical, and autonomy requirements typical of the Bachelor level.

The programme explicitly states:

- 1 credit = 25 study hours,
- 30 ECTS per semester and 60 per year,
- 240 ECTS for the full qualification.
  These elements are fully aligned with national regulations and the ECTS European Credit Transfer and Accumulation System. The program's duration and credit calculation demonstrate compliance with Georgian Law on Higher Education.

The programme shows individuality through its strong emphasis on 200 ECTS of core Computer Science courses, which exceeds the typical minimum core requirement. Additionally, the inclusion of a free component, along with targeted elective courses in the major field, creates opportunities for individual academic pathways. This combination provides distinctiveness relative to standard CS bachelor programs and supports student choice.

The awarded qualification, Bachelor of Informatics, clearly matches the program's dominant focus on Computer Science.
The heavy core curriculum ensures that graduates obtain the fundamental knowledge, skills, and competencies required for the Informatics field. The placement of compulsory and elective courses also supports gradual acquisition of the programme learning outcomes, ensuring alignment between curriculum and intended graduate profile. The programme includes 30 ECTS of elective courses within the major field. These electives typically deepen knowledge in specialized CS areas. Since the electives are required to be within the core study field, their learning outcomes naturally reinforce and are consistent with the programme's overall outcomes. The programme is structured into compulsory, elective, and free components that follow a logical academic sequence across eight semesters. The progression from foundational to advanced topics supports a coherent development of student competencies. The structure ensures that prerequisites—particularly for advanced informatics or software engineering courses—are respected through sequencing. This consistency ensures students build knowledge step-by-step toward achieving learning outcomes. Computer Science is a rapidly evolving field, and the program's substantial core component allows integration of new research developments. Although not explicitly stated in the provided text, the inclusion of 200 ECTS in discipline-specific courses strongly suggests the ability to incorporate modern technologies, methodologies, and contemporary scientific knowledge into the curriculum. This is typical for CS programs and aligns with EQE expectations. The program is offered entirely in English, ensuring immediate alignment with internationalization requirements. English-taught delivery broadens student exposure to international academic sources, global computing standards, and multinational learning contexts. Additionally, Computer Science as a discipline inherently relies on globally recognized knowledge, which ensures international relevance of program content. The stakeholder involvement is addressed. As the program is described in a publicly accessible manner, including detailed structure and qualification level, the HEI demonstrates compliance with the requirement for transparency. Bachelor's programs

in Georgia are published on the university's official website, and the description provided suggests that such information is available to prospective students and stakeholders.

Description and Analysis - Programme 2 (Computer Science, MS)

The information indicates that the Master's program was revised and developed in strict accordance with the university's internal methodology for planning and constructing educational programs. The update was aligned with the National Qualifications Framework (NQF), the official Classifier of Fields of Study, and the sectoral benchmarks for Computer Science. This demonstrates that the HEI followed its own internal procedures for programme development, including academic committee review and methodological compliance processes.

The total volume of 120 ECTS, delivered over 2 years (4 semesters), fully corresponds to the requirements of the second cycle (Master's) degree.
The high proportion of compulsory advanced courses (100 ECTS) reflects a deeper academic and research complexity typical of Master-level studies. The progression and advanced subject matter align with the expectations of graduate-level learning, requiring higher-order analytical, research, and problem-solving competencies consistent with Level 7 of the NQF.

The description clearly states:

- 1 ECTS = 25 hours of student workload
- 30 ECTS per semester, 60 per year
- Total programme volume = 120 ECTS

These parameters are fully compliant with Georgian legislation regulating Master's programmes and with the ECTS credit system. The program's structure and workload calculations demonstrate fidelity to legal and academic standards.

The program demonstrates individuality through:

- A substantial 100-credit core component reflecting advanced Computer Science themes.
- A focused 20-ECTS elective block enabling specialization based on student interest or research orientation.

This balance allows students to customize their academic trajectory while maintaining a strong disciplinary foundation. The design ensures distinctiveness relative to generic Master's programs by embedding advanced, research-oriented core courses.

The awarded qualification, Master of Informatics, directly corresponds to the content, depth, and research orientation of the program. The dominance of core, discipline-specific courses ensures that students gain advanced competencies in Computer Science. The program architecture supports the acquisition of all intended learning outcomes related to theoretical knowledge, practical research skills, and professional competencies appropriate for the Master's level. Although no explicit concentrations are described, the program includes 20 ECTS of elective courses in the field, which allow for thematic specialization. Because these electives are restricted to the major field of study, their outcomes inherently align with and

support the broader programme learning outcomes. The electives reinforce the development of specialized expertise while maintaining coherence with the programme's core requirements.

The program's structure is clearly organized:

- Core courses (100 ECTS) establish a strong foundation of advanced knowledge.
- Electives (20 ECTS) complement the core with thematic depth.

This design ensures that theoretical preparation and research components follow a logical progression across semesters. Program sequencing supports increasing levels of complexity and autonomy, culminating in research-oriented outcomes expected at the Master's level. The structure is coherent and ensures that students acquire necessary competencies before advancing to more complex subjects.

Since the program is grounded in the sectoral benchmarks of Computer Science and aligned with updated NQF standards, it integrates contemporary scientific advancements and current research trends. Master's-level education inherently requires exposure to modern theories, methodologies, and technologies. Thus, the program's core content and research-oriented electives ensure ongoing alignment with evolving global developments in Informatics and Computer Science.

The program somehow promotes internationalization and supports the use of global academic sources, research publications, and international standards. Computer Science as a discipline is globally standardized, and the Master's program's content ensures students engage with internationally recognized methods and tools. The English-language environment further aligns the program with international academic and professional expectations.

The stakeholder involvement is verified, referencing compliance with NQF, sector benchmarks, and national classifications implies that standard institutional processes—such as curriculum committees, academic boards, and consultations with subject experts—were followed. The program description, including credits, structure, qualification, and alignment with national frameworks, is presented in an accessible format. This suggests that the HEI maintains public access to program information on official platforms, such as the university website and promotional materials. The level of detail supports transparency and fulfills EQE requirements for public dissemination.

Evidences/Indicators

- ATSU Quality Assurance Policy - EP-QA" (Academic Council Resolutions No. 49 (17/18), No. 39 (20/21), 15.07.2021, No. 8 (22/23), 16.09.2022)
- Educational Programs Quality Assurance Policy - EP-QA
- English-language Bachelor's Educational Program "Computer Science"
- Master's Educational Program "Computer Science"
- Syllabi of study courses

- Map of the program objectives and learning outcomes
- Analysis of the curriculum map
- University website www.atsu.edu.ge
- Interview results

Recommendations and Suggestions according to the programmes:	Recommendation(s): Please, write the developed recommendations that apply equally to the educational programmes grouped in the cluster. Also, please indicate, according to individual programs (if any)	Suggestion(s): Please, write the developed suggestions that apply equally to the educational programmes grouped in the cluster. Also, please indicate, according to individual programs (if any)
General recommendations/ Suggestion of the Cluster		
Programme 1 (Computer Science, BS)		
Programme 2 (Computer Science, MS)		

Evaluation

Please, evaluate the compliance of the programme with the component

Component 1.4. Structure and Content of Educational Programme	Evaluation
Programme 1 (Computer Science, BS)	Complies with requirements
Programme 2 (Computer Science, MS)	Complies with requirements

1.5. Academic Course/Subject

Accreditation standards indicators

➢ The content of the academic course / subject and the number of credits ensure the achievement of the learning outcomes defined by this course / subject.
➢ The content and the learning outcomes of the academic course/subject of the main field of study ensure the achievement of the learning outcomes of the programme.
➢ The study materials indicated in the syllabus ensure the achievement of the learning outcomes of the programme.

Summary and Analysis of the Compliance of the Educational Programmes Grouped in a Cluster with the Requirements of the Standard Component

Cluster evaluation

Description and Analysis of Cluster

The academic courses across the Computer Science cluster are structured, standardized, and quality assured under ATSU's EP-QA policy. Each syllabus specifies objectives, learning outcomes, teaching methods, assessment criteria, and compulsory/supporting literature. Courses are mapped to program learning outcomes (PLOs) through an I–P–M model (Introduction–Practice–Mastery), ensuring logical progression and coverage. Credit allocations and contact/independent hours are consistent with ECTS standards.

The availability of compulsory and supporting literature in both print and electronic form, combined with free access to the university's digital catalog, strengthens alignment between resources and course outcomes. Student surveys at the end of each semester provide indirect evaluation of course quality, addressing relevance, resource sufficiency, and lecturer competence.

At the cluster level, the system ensures coherence and compliance with EQE standards. However, an important issue arises regarding the overlap of topics between Bachelor's and Master's syllabi. Several subject areas – particularly Object-Oriented Programming, Data Structures, and Algorithms – are present in both programs. While some continuity is expected, EQE requires that higher-level courses demonstrate clear progression in complexity and depth (NQF Level 6 → Level 7).

In practice, some of the BS syllabi introduce core concepts (e.g., implementing canonical algorithms, building data structures, programming in C++), while MS syllabi revisit the same domains but with only moderate shifts in emphasis (e.g., algorithm modification, empirical efficiency analysis).

This creates a risk of perceived duplication if not explicitly differentiated. Without stronger framing, a question arises whether the MS-level courses deliver sufficiently advanced competencies distinct from the bachelor's level.

By contrast, some areas — such as Databases — already demonstrate strong progression: the BS program covers relational models and SQL, while the MS program expands into distributed, NoSQL, and Big Data systems. This illustrates how vertical alignment should be presented across the cluster.

Recommendation:

- Internationalization is limited; Bachelor's courses rely on classical literature but could integrate more recent research papers or ACM/IEEE standards.

- Student workload division (contact vs independent hours) is uniform but may not reflect the complexity variation across courses.
- Overlap risks: Bachelor's and Master's syllabi, for example, in OOP, Data Structures, and Algorithms need clearer distinction in scope and depth. MS courses should emphasize research-oriented, innovative, and advanced topics (e.g., design patterns, distributed/parallel algorithms, advanced data structures).

Individual evaluation -

Description and Analysis - Programme 1 (Computer Science, BS)

The bachelor's program provides a comprehensive foundation in computer science, with courses in programming, data structures, algorithms, computer architecture, and databases. The syllabi clearly define learning outcomes, teaching methods, assessment rubrics, and literature. Credit allocations follow ECTS standards (5 ECTS per course; 25 hours per credit), and the balance of contact and independent hours is appropriate to the level and content of the courses. However, some potential overlap with master's-level content exists.

Description and Analysis - Programme 2 (Computer Science, MS)

The master's program builds on bachelor's foundations and emphasizes advanced specialization and research competencies. Courses such as Fundamental Algorithms, Advanced Data Structures, OOP, and Databases are designed to develop higher-order skills consistent with NQF Level 7 descriptors: independent research, critical analysis of complex problems, and professional responsibility.

Credit allocations are consistent with ECTS, and the ratio of contact to independent hours reflects the expectation of greater autonomy at the graduate level. Assessments include written exams, research-based projects, and thesis components, ensuring that all outcomes are evaluated.

While the program structure is coherent, there is a risk of overlap with bachelor's courses.

Evidences/Indicators

- English-language bachelor's educational program "Computer Science";
- Master's educational program "Computer Science";
- Syllabi of study courses;
- ATSU Library - http://www.library.atsu.edu.ge
- Interview results

Recommendations and Suggestions according to the programmes:	Recommendation(s): Please, write the developed recommendations that apply equally to the educational programmes grouped in the cluster. Also, please indicate, according to individual programs (if any)	Suggestion(s): Please, write the developed suggestions that apply equally to the educational programmes grouped in the cluster. Also, please indicate, according to individual programs (if any)
General recommendations/ Suggestion of the Cluster	Strengthen course content by integrating recent research papers, ACM/IEEE standards, and global best practices, particularly at the bachelor's level. Adjust the ratio of contact and independent hours to better reflect the complexity and demands of individual courses. Clarify the distinction between bachelor's and master's syllabi in overlapping areas by emphasizing research-oriented and advanced topics at the master's level.	
Programme 1 (Computer Science, BS)		
Programme 2 (Computer Science, MS)		

Evaluation

Please, evaluate the compliance of the programme with the component

Component 1.5. Academic Course/Subject	Evaluation
Programme 1 (Computer Science, BS)	Substantially complies with requirements
Programme 2 (Computer Science, MS)	Substantially complies with requirements

2. Methodology and Organisation of Teaching, Adequacy of Evaluation of Programme Mastering

Accreditation standards indicators

Prerequisites for admission to the programme, teaching-learning methods and student assessment consider the specificity of the study field, level requirements, student needs, and ensure the engagement achievement of the objectives and expected learning outcomes of the programme.

2.1 Programme Admission Preconditions

The HEI has relevant, transparent, fair, public and accessible programme admission preconditions and procedures that ensure the engagement of individuals with relevant knowledge and skills in the programme to achieve learning outcomes.

Summary and Analysis of the Compliance of the Educational Programmes Grouped in a Cluster with the Requirements of the Standard Component

Cluster evaluation

Description and Analysis of Cluster

Admission procedures across the cluster are transparent, compliant with Georgian legislation, and publicly accessible. Both the bachelor's and master's programs ensure that entry requirements correspond to the level of education, program content, and intended qualification. Admission information is consistently published through the ATSU website, the national "Directory for Entrants," university booklets, and catalogs, meeting the EQE requirement of publicity and accessibility.

The cluster demonstrates a fair and inclusive approach, providing pathways for foreign students, stateless persons, and internal/external mobility in line with Ministry of Education regulations. This ensures openness while maintaining compliance with national standards.

ATSU also applies a methodology for student body planning, aligning program admission capacity with institutional resources, teaching staff expertise, and program-specific characteristics. This supports smooth program administration and demonstrates consideration of resource adequacy in planning student numbers.

Individual evaluation

Description and Analysis - Programme 1 (Computer Science, BS)

For the bachelor's program in Computer Science, admission is based on:

- Completion of general secondary education and results of the Unified National Exams.
- Exemptions for foreign citizens, Georgian citizens educated abroad, and those transferring credits from accredited foreign institutions, in line with legislation.
- Additional pathways through internal and external mobility mechanisms.

These requirements are consistent with program characteristics, as they ensure that entrants possess the foundational knowledge and skills necessary to succeed at NQF Level 6. The link to program content is logical: broad general education provides the basis for mastering core computer science subjects.

Suggestion: While requirements ensure general readiness, the program could consider introducing additional orientation or bridging courses for entrants from diverse educational backgrounds, especially international students. Internationalization of admission processes could be strengthened through more systematic recognition of international qualifications and active promotion to attract foreign applicants.

Description and Analysis - Programme 2 (Computer Science, MS)
The master's program requires:

- A bachelor's degree or equivalent qualification.
- Success in the general master's exam.
- Success in internal university exams, consisting of:
  - Specialty exam in computer science (written test with theoretical and closed questions).
  - Foreign language exam (English), unless exempted with valid B2 certification (TOEFL, IELTS, Cambridge FCE, or ATSU Language Center certification).

This structure ensures that admitted students have the disciplinary knowledge, analytical skills, and language competence required for NQF Level 7 study. The English-language requirement directly supports internationalization, as it ensures students can access international resources and potentially engage in mobility.

Suggestion: While exam formats are described, the evaluation rubrics and transparency of grading could be elaborated to strengthen evidence of fairness.

Evidences/Indicators

- Bachelor's degree program "Computer Science";
- Master's degree program "Computer Science";
- Resolution of the Academic Council 87 (23/24), 28.02.2024 "On the mechanism for obtaining, suspending, terminating, restoring, mobility, granting qualifications and recognizing the received education, changing/cancelling the educational program, and providing students of the relevant program with further education"
- University website https://www.atsu.edu.ge
- Intreview Results

Recommendations and Suggestions according to the programmes:	**Recommendation(s):** Please, write the developed recommendations that apply equally to the educational programmes grouped in the cluster. Also, please indicate, according to individual programs (if any)	**Suggestion(s):** Please, write the developed suggestions that apply equally to the educational programmes grouped in the cluster. Also, please indicate, according to individual programs (if any)
General recommendations/ Suggestion of the Cluster		
Programme 1 (Computer Science, BS)		While requirements ensure general readiness, the program could consider introducing additional orientation or

		bridging courses for entrants from diverse educational backgrounds, especially international students. Internationalization of admission processes could be strengthened through more systematic recognition of international qualifications and active promotion to attract foreign applicants.
Programme 2 (Computer Science, MS)		While exam formats are described, the evaluation rubrics and transparency of grading could be elaborated to strengthen evidence of fairness.

Evaluation

Please, evaluate the compliance of the programme with the component

Component 2.1 Programme Admission Preconditions	**Evaluation**
Programme 1 (Computer Science, BS)	Complies with requirements
Programme 2 (Computer Science, MS)	Complies with requirements

2.2. The Development of Practical, Scientific/Research/Creative/Performing and Transferable Skills

Accreditation standards indicators

Programme ensures the development of students' practical, scientific/research/creative/performing and transferable skills and/or their involvement in research projects, in accordance with the programme learning outcomes.

Summary and Analysis of the Compliance of the Educational Programmes Grouped in a Cluster with the Requirements of the Standard Component

Cluster evaluation

Description and Analysis of Cluster

The programmes within the cluster ensure the development of students' practical as well as creative/performance skills through structured programme components aligned with the intended learning outcomes. The practical and creative/performance elements are well-organized and planned in accordance with the level of education, enabling students to acquire skills relevant to their field.

The programmes benefit from a strong partnership with industry, which significantly enhances the practical dimension. Invited lecturers from companies provide students with real-world insights and applied skills, while the university has also invested in resources such as

programmable boards (Arduino and similar technologies). In addition, the Robotechnic Camp serves as an effective platform for students to apply theoretical knowledge in practice and develop creative and problem-solving competences.

With regard to research and scientific engagement, the cluster provides students with opportunities to participate in scientific projects, though the level of engagement, particularly within the Master's programme, requires further strengthening. The institutional document *"Master's Thesis Work Policy and Assessment Regulations"* clearly emphasizes the expectation that students should demonstrate originality, independent research skills, and the ability to solve complex problems using modern methods and approaches. However, not all Master's theses consistently reflect these standards in practice, which indicates the need for further support in developing advanced research skills.

The agreements and memoranda signed with employers and centres of practice further reinforce the practical orientation of the programmes. These agreements formalize student placements, define objectives, outcomes, and duration of practice, and directly contribute to the achievement of programme learning outcomes.

Overall, the programmes are largely compliant with the requirements of this sub-standard. The practical and creative/performance elements are well developed, while scientific/research engagement, particularly at the Master's level, remains an area for enhancement.

Evidences/Indicators

- Graduate career development information, demonstrating the impact of practical and research components on employability and further education.
- Interview results with students, academic staff, and employers confirming the effective implementation of practical, creative, and research components of the programmes.
- Reports and supporting documents on the completed practice components, including assessment results and feedback, certifying their alignment with programme learning outcomes.
- Agreements and memoranda of cooperation with employers, industry partners, and centres of practice, outlining student numbers, objectives, outcomes, and duration of practice placements.

Recommendations and Suggestions according to the programmes:	**Recommendation(s):** Please, write the developed recommendations that apply equally to the educational programmes grouped in the cluster. Also, please indicate, according to individual programs (if any)	**Suggestion(s):** Please, write the developed suggestions that apply equally to the educational programmes grouped in the cluster. Also, please indicate, according to individual programs (if any)
General recommendations/		

Suggestion of the Cluster		
Programme 1 (Computer Science, BS)		
Programme 2 (Computer Science, MS)	The university should intensify the integration of students into scientific and research projects to ensure that the outcomes of Master's theses consistently demonstrate originality, advanced research skills, and the ability to address complex problems in line with programme requirements.	

Evaluation

Please, evaluate the compliance of the programmes with the component

Component 2.2. The Development of Practical, Scientific/Research/Creative/Performing and Transferable Skills	Evaluation
Programme 1 (Computer Science, BS)	Complies with requirements
Programme 2 (Computer Science, MS)	Substantially complies with requirements

2.3. Teaching and Learning Methods

Accreditation standards indicators

The programme is implemented by using student-centered teaching and learning methods. Teaching and learning methods correspond to the level of education, course/subject content, learning outcomes and ensure their achievement.

Summary and Analysis of the Compliance of the Educational Programmes Grouped in a Cluster with the Requirements of the Standard Component

Cluster evaluation

Description and Analysis of Cluster

Teaching and learning methods applied across the cluster programmes are designed in accordance with the level of education, content of academic courses, and expected learning outcomes. Each course syllabus clearly defines the corresponding methods and assessment forms, ensuring consistency with sectoral benchmark requirements and alignment with programme objectives. The applied methods promote both theoretical understanding and the development of applied skills relevant to the field of study.

A variety of teaching and learning approaches are used, including lectures, seminars, laboratory work, group projects, case studies, and independent research tasks. This combination allows students to actively engage with course material and apply knowledge in practical and analytical contexts. Through these approaches, students develop competencies in critical thinking, problem-solving, teamwork, and communication - all essential for professional and academic advancement.

The programmes emphasize active student participation and interaction, fostering collaboration between students and instructors as well as among peers. Learning environments are structured to encourage autonomy and responsibility, with students taking an active role in discussions, practical assignments, and project-based activities. Such engagement contributes to the development of both individual and collective learning skills.

Teaching and learning methods are also flexible and student-oriented, allowing adaptation to individual academic readiness, interests, and needs. Academic staff provide consultation hours, mentoring, and individualized learning opportunities to support students requiring additional guidance. Where necessary, individualized study plans are developed in accordance with institutional procedures.

For international students and exchange participants, staff consider linguistic and cultural needs when planning instruction and assessment, ensuring inclusiveness and equal access to learning opportunities. The university promotes a multicultural and supportive environment, reflecting modern academic diversity principles.

In addition, the programmes incorporate digital and distance-learning elements. The university utilizes an electronic learning management system (LMS) that provides access to course materials, assignments, and communication channels between students and instructors. This ensures academic continuity and flexibility without compromising programme objectives or learning outcomes.

Overall, the teaching and learning methods across the cluster are coherent, inclusive, and outcome-oriented. They ensure the active engagement of students, promote autonomy, and effectively support the achievement of programme learning outcomes. The programmes fully comply with the requirements of this sub-standard.

Evidences/Indicators

- Educational programmes and syllabi reflecting teaching and learning methods.
- Examples of interactive and student-centered activities implemented during courses.
- Electronic resources utilized to implement the programmes in the cluster.
- Interview results with students and staff confirming effective use of teaching and learning methods.

Recommendations and Suggestions according to the programmes:	**Recommendation(s):** Please, write the developed recommendations that apply equally to the educational programmes grouped in the cluster. Also, please indicate, according to individual programs (if any)	**Suggestion(s):** Please, write the developed suggestions that apply equally to the educational programmes grouped in the cluster. Also, please indicate, according to individual programs (if any)
General recommendations/ Suggestion of the Cluster		

Programme 1 (Computer Science, BS)		
Programme 2 (Computer Science, MS)		

Evaluation

Please, evaluate the compliance of the programmes with the component

Component 2.3. Teaching and Learning Methods	**Evaluation**
Programme 1 (Computer Science, BS)	Complies with requirements
Programme 2 (Computer Science, MS)	Complies with requirements

2.4. Student Evaluation

Accreditation standards indicators

The HEI has relevant, transparent, and clearly defined student evaluation procedures that are publicly accessible and aligned with national legislation. These procedures ensure the objective assessment of students' academic performance and support the achievement of programme learning outcomes.

Summary and Analysis of the Compliance of the Educational Programmes Grouped in a Cluster with the Requirements of the Standard Component

Cluster evaluation

Description and Analysis of Cluster

Student evaluation across the cluster of higher education programmes at LEPL Akaki Tsereteli State University (ATSU) is conducted in full compliance with national legislation and institutional regulatory acts, ensuring transparency, fairness, and alignment with learning outcomes. The evaluation system is uniform across the programmes in the cluster and is based on a combination of midterm and final assessments, with clearly defined scoring, thresholds, and criteria.

The student assessment system follows the requirements outlined in the Orders of the Minister of Education and Science of Georgia (No. 3, 05.01.2007 and No. 105/N), as well as institutional regulations approved by the University's Academic Council (Resolutions No. 5 (17/18), No. 6 (22/23), and No. 16 (21/22)). These documents define the structure and procedures for evaluating student academic performance and are uniformly applied across the educational programmes within the cluster.

Evaluation is conducted on a 100-point scale, with 60 points allocated for midterm assessment and 40 points for the final exam. The midterm component includes:

- Student activity (maximum 30 points),
- Midterm examination (minimum 30 points).

Students must earn at least 20 points overall in midterm assessments to be eligible for the final exam, with a minimum of 12 points from activity-related components. The threshold for passing the final exam is 16 points. Students who receive an FX (41-50 points) are entitled to take an additional exam within five days of the final exam results. The additional exam grade replaces only the final exam component and does not combine with the original final exam score. A final score below 51 points results in a failing grade (F), requiring the student to retake the course.

The grading system includes five positive (A-E) and two negative (FX, F) evaluations, which are consistently applied across the programmes in the cluster.

Assessment methods and criteria are transparently communicated to students through the syllabus and introductory sessions during the first lecture of each course. Each course syllabus details the specific evaluation components and learning outcomes it targets, ensuring alignment between assessment and expected competencies. The assessment approach is adapted to the course content and learning objectives, allowing for flexibility while maintaining consistency in standards across the cluster.

All assessment results are published through ATSU's electronic educational management platform (http://edean.atsu.edu.ge/dekanati/), to which students have individual, confidential access. This platform facilitates the efficient and secure administration of the learning and evaluation process within the cluster.

The technical organization of exams is managed by the Examination Sector of the Educational Process Management Service, ensuring consistency and reliability in exam procedures across the clustered programmes.

The university has an effective, formalized appeals process. According to Academic Council Resolution No. 9 (17/18), students who wish to contest their final exam results may file a written appeal within one week of result publication. Appeals are reviewed by a faculty-level commission formed by the Dean upon departmental recommendation. The Appeals Commission may uphold or improve a student's grade, but not lower it, and all decisions are formally documented and processed through the Electronic Dean's Office system.

Continuous improvement of the student evaluation system is a key component of the university's quality assurance strategy. Programme revisions, including those related to assessment, are conducted annually and documented in the Self-Evaluation Reports. The use of the PDCA (Plan-Do-Check-Act) cycle ensures the regular enhancement of evaluation practices to support student learning and maintain academic integrity across all programmes in the cluster.

In summary, the student evaluation mechanisms employed in the cluster of higher education programmes at ATSU demonstrate compliance with accreditation standards. The system is well-structured, transparent, student-centered, and legally grounded, effectively supporting the achievement of learning outcomes across the cluster.

Individual evaluation

Description and Analysis - Programme 1 (Computer Science, BS)

Student Evaluation

Student evaluation in the Bachelor's Programme in Computer Science at HEI is conducted according to national regulations and internal institutional policies. The assessment system is structured, transparent, and aligned with the learning outcomes of each course.

Each course component is evaluated on a 100-point scale, with 60 points allocated for midterm assessments (including student activity and a midterm exam) and 40 points for the final exam. Clear thresholds are established for progressing to final exams and for successful completion of each course. The evaluation includes five types of positive and two types of negative grades, and students who receive an **FX** grade have the opportunity to retake an additional exam within five days.

Evaluation criteria are detailed in each course syllabus, introduced during the first lecture, and tailored to the specific nature of the subject. Students can access their results through a secure electronic system, ensuring transparency and confidentiality. The university also has an established and effective appeal mechanism, regulated by the Academic Council, allowing students to request a review of their final exam results within a defined timeframe.

Overall, the evaluation system ensures fairness, supports academic progress, and is continuously refined through regular updates and the university's PDCA quality assurance cycle.

Description and Analysis - Programme 2 (Computer Science, MS)

Master's Thesis Assessment

The master's thesis assessment process in the *Computer Science* Master's programme at LEPL Akaki Tsereteli State University is clearly regulated, transparent, and aligned with national standards and institutional procedures. It ensures the fair evaluation of students' research work and supports the achievement of the intended learning outcomes of the programme.

1. **Timing and Procedure**
   The master's thesis is evaluated in the same or the following semester in which the student completes their work, ensuring timely feedback and progress toward graduation. The thesis is assessed **once**, based on a **final evaluation** conducted by a defense commission.

2. **Evaluation System**
   The defense commission evaluates the thesis on a 100-point scale. The final score is the **average of the individual assessments** provided by each commission member. The assessment system is based on standardized criteria and includes:

- **Five types of positive evaluations**:
    - (A) Excellent – 91-100 points
    - (B) Very Good – 81-90 points
    - (C) Good – 71-80 points
    - (D) Satisfactory – 61-70 points
    - (E) Sufficient – 51-60 points
- **Two types of negative evaluations**:
    - (FX) Did Not Pass – 41-50 points: The student may revise and resubmit the thesis during the following semester.
    - (F) Failed – 0-40 points: The student loses the right to resubmit the same research topic.

3. **Assessment Criteria**
   The master's thesis is evaluated using clearly defined and transparent criteria. A maximum of 100 points can be awarded, broken down as follows:

- **Formal Aspects** (10 points):
  Includes compliance with formatting standards, structure (table of contents, conclusion), and quality of references used (literature/web sources).
- **Content of the Thesis** (60 points):
    - Relevance of the topic – 15 points
    - Scientific novelty – 15 points
    - Quality of performance – 15 points
    - Project and software implementation – 15 points
- **Presentation of the Thesis** (30 points):
    - Verbal presentation skills – 10 points
    - Technical and visual presentation – 10 points
    - Expert evaluations during defense – 10 points

Only theses with **positive evaluations** from both the **supervisor and reviewer(s)** are permitted to proceed to the defense stage.

4. **Documentation and Archiving**
   The final evaluation is formally confirmed through an official protocol. Theses are stored in the relevant department for **five years**, after which they are **archived** according to ATSU's internal regulations.

5. **Compliance and Quality Assurance**
   The structure and application of the thesis assessment process within the Master's programme in *Computer Science* demonstrate full compliance with institutional and national requirements. The use of clear, measurable criteria supports objective evaluation, while the appeal and resubmission options provide mechanisms for fairness and continuous improvement.

Conclusion:
The Master's programme in *Computer Science* has a well-developed, structured, and transparent process for assessing the Master's thesis. It ensures academic integrity, supports student achievement, and reflects a commitment to continuous quality enhancement within the programme.

Evidences/Indicators

- English-language undergraduate educational programme "Computer Science" (Bachelor's level)
- Master's degree programme "Computer Science"
- Syllabi of study courses, including evaluation methods and criteria
- Resolution No. 6 (22/23) of the ATSU Academic Council – *On amendments to the student assessment system* (amending Resolution No. 5 (17/18), dated 15.09.2017)
- Resolution No. 16 (20/21) of the ATSU Academic Council – *On changes to the system and criteria for assessing the knowledge of students of the Faculty of Exact and Natural Sciences*
- Resolution No. 9 (17/18) of the ATSU Academic Council – *On the procedure for appealing exams*
- Resolution No. 52 (22/23) of the ATSU Academic Council – *On the approval of the procedure for preparing a master's thesis*
- Guide to Assessment Methods and Criteria used across the educational programmes
- Electronic educational process management system (http://edean.atsu.edu.ge/dekanati/) – demonstration and explanation during site visit
- Interviews with academic staff – confirming understanding and consistent application of assessment rules and criteria
- Interviews with students – confirming awareness of assessment methods, use of the electronic system, and knowledge of appeal procedures
- Site visit observations – confirming the technical and administrative organization of student assessments and the operation of the appeal system

- Self-Evaluation Report of the Cluster of Higher Education Programmes – including references to continuous improvement and PDCA cycle implementation

Recommendations and Suggestions according to the programmes:	Recommendation(s): Please, write the developed recommendations that apply equally to the educational programmes grouped in the cluster. Also, please indicate, according to individual programs (if any)	Suggestion(s): Please, write the developed suggestions that apply equally to the educational programmes grouped in the cluster. Also, please indicate, according to individual programs (if any)
General recommendations/ Suggestion of the Cluster		
Programme 1 (Computer Science, BS)		It is suggested to introduce practical assignments and projects alongside exams to better assess student skills.
Programme 2 (Computer Science, MS)		It is suggested to incorporate formative interim assessments during the thesis development process, primarily conducted by the supervisor, to provide ongoing guidance and early feedback without affecting the final summative evaluation.

Evaluation

Please, evaluate the compliance of the programmes with the component

Component 2.4. Student Evaluation	Evaluation
Programme 1 (Computer Science, BS)	Complies with requirements
Programme 2 (Computer Science, MS)	Complies with requirements

3. Student Achievements, Individual Work with Them

The programme fosters a student-centered learning environment by delivering comprehensive support services and ensuring high levels of student awareness. It actively encourages student participation in diverse activities and promotes engagement in both local and international projects. Additionally, it guarantees the provision of rigorous scientific guidance and supervision to master's and doctoral students, supporting their academic and research development.

3.1 Student Consulting and Support Services

Accreditation standards indicators

The programme ensures that students receive comprehensive consultation and support for academic planning, performance enhancement, and career development from both programme

staff and relevant institutional units. Students benefit from a diverse and well-structured learning experience, supported by timely access to pertinent information and tailored guidance from qualified personnel involved in the programme.

Summary and Analysis of the Compliance of the Educational Programmes Grouped in a Cluster with the Requirements of the Standard Component

Cluster evaluation

Description and Analysis of Cluster

The Faculty of Exact and Natural Sciences at ATSU demonstrates a robust, student-focused educational environment, effectively integrating academic, administrative, and support services to enhance student learning outcomes and engagement.

Students actively participate in joint research projects alongside faculty members, promoting experiential learning and strengthening academic collaboration. The programme incentivizes student involvement in conferences, training, and research activities through scholarship criteria that reward active participation. Faculty members receive a one-time bonus for publishing international articles, reflecting a culture of research excellence.

A self-evaluation group ensures continuous monitoring and improvement, with a clear orientation towards student outcomes. Programme leaders provide structured guidance at both bachelor's and master's levels, with 2-3 supervisors assigned per master's student to ensure focused academic mentorship.

The university maintains formal agreements (memoranda) with employers, facilitating practical internships both on campus and in external companies, with 5-6 active partnerships supporting student work experience. Career services are well-integrated, offering electronic access to support, job vacancy notifications, and active cooperation with employers.

The Student Support and Development Service offers multi-channel access, including electronic communication, to address appeals, scholarships, conference participation, and more. The Ombudsman and psychological counseling services provide essential advocacy and mental health support. Student tutors, employed as paid assistants and trainers in activities such as robotics camps and laboratory support, provide peer-to-peer mentoring with 24/7 availability for academic consultations and exam preparation.

Academic personnel include both full-time and invited experts, with ongoing evaluations by students to ensure teaching quality. There is a recognized need for expanding English-language instruction, which is being addressed in newly developed syllabi through courses in programming and machine languages.

The Student Self-Government plays a significant role in fostering active participation, civic education, and cultural exchange. Additional extracurricular initiatives such as challenges, hackathons, and innovative project involvement are encouraged, with plans incorporated into new programme designs.

The faculty demonstrated rapid adaptation to COVID-19 challenges by transitioning to fully online learning and adjusting practical components accordingly, including flexible exam

scheduling. Library services are fully operational digitally, ensuring continuous academic resource access.

Feedback from students and stakeholders informs ongoing enhancements, including increased practical components and expanded training opportunities. The introduction of new programmes reflects these inputs, ensuring alignment with student interests and labor market needs.

Overall, the cluster exhibits a well-rounded and dynamic educational environment focused on student success through active research involvement, comprehensive support services, and strong links with employers. Continuous quality assurance processes and adaptability to changing circumstances ensure the programmes remain relevant and responsive to both student and labor market needs. The integration of student feedback and administrative engagement fosters a culture of ongoing improvement and innovation.

Evidences/Indicators

- The Student Support and Development Service portal (https://atsu.edu.ge/ge/office/11-student_services/main), detailing available student assistance programs.
- The ATSU Tutor program information page (https://atsu.edu.ge/index.php/tutoring-info), outlining peer tutoring and academic support services.
- Career Development and Employment Support resources for students and graduates (https://atsu.edu.ge/index.php/carrier-development-info), demonstrating employment facilitation efforts.
- Academic Council Resolution No. 39 (13/14) on the "Rights and Duties of the Curator," establishing guidelines for student academic supervision.
- Academic Council Resolution No. 30(17/18) approving the "Rules for Developing an Individual Curriculum," ensuring tailored academic pathways for students.
- The official university website (www.atsu.edu.ge) providing comprehensive information on university policies, academic programs, and support services.
- Interviews, site visit observations.

Recommendations and Suggestions according to the programmes:	**Recommendation(s):** Please, write the developed recommendations that apply equally to the educational programmes grouped in the cluster. Also, please indicate, according to individual programs (if any)	**Suggestion(s):** Please, write the developed suggestions that apply equally to the educational programmes grouped in the cluster. Also, please indicate, according to individual programs (if any)
General recommendations/ Suggestion of the Cluster		It is suggested to provide regular training for academic and career advisors to keep them updated on best practices, labor market trends, and diverse student needs.
Programme 1 (Computer Science, BS)		

Programme 2 (Computer Science, MS)		

Evaluation

Please, evaluate the compliance of the programmes with the component

Component 3.1 Student Consulting and Support Services	**Evaluation**
Programme 1 (Computer Science, BS)	Complies with requirements
Programme 2 (Computer Science, MS)	Complies with requirements

3.2. Master's and Doctoral Student Supervision

Accreditation standards indicators

- The programme ensures scientific supervisors effectively support master's and doctoral students in completing their research, with an optimal student-to-supervisor ratio enabling proper supervision.

Summary and Analysis of the Compliance of the Educational Programmes Grouped in a Cluster with the Requirements of the Standard Component

Cluster evaluation

Description and Analysis of Cluster

The Master's Educational Program in Computer Science ensures effective supervision aligned with accreditation standards. Each master's student is assigned a qualified scientific supervisor based on their research interests, who provides continuous individual consultations throughout the thesis process. Supervisors assist with research planning, methodology, problem-solving, and monitor progress, ensuring proper guidance and support.

The program regulates the selection and approval of thesis topics through a clear syllabus, promoting transparency and consistency. Supervisors maintain close communication with students, offering accessible consultations, including outside regular hours, to address academic and research challenges.

According to institutional regulations, a master's thesis can be supervised by academic staff (professor, associate professor), an emeritus-professor, or an invited specialist holding a doctoral degree - subject to nomination by the programme head and approval by the

department and faculty board. Supervisors are officially appointed by the faculty board and the Rector. Co-supervision is also permitted based on research needs, and each supervisor may be assigned a maximum of five students simultaneously, ensuring appropriate workload distribution and quality support.

Additional support includes opportunities for students to engage in joint research with faculty, participate in conferences and training, and take on roles such as teacher assistants or lab assistants under supervision. These mechanisms foster academic growth and strengthen the connection between research and teaching.

Overall, the program provides a structured, student-focused supervision framework that facilitates successful completion of the scientific-research component and supports both academic and professional development.

Data related to the supervision of master's/doctoral students **Programme 1 (name, level)**[5] **Programme 2 (Computer Science, MS)**	
Number of master's/doctoral theses supervisors	**11**
//Number of doctoral thesis supervisors	**-**
Number of master's students	**10**
//Number of doctoral students	**-**
Ratio - supervisors of master's theses/master's students	**1.1**
Ratio - supervisors of doctoral theses/doctoral students	**-**

Evidences/Indicators

- Component evidences/indicators, including the relevant documents and interview results
- Master’s Educational Program "Computer Science"
- Master’s Thesis Syllabus
- Resolution of the Academic Council of ATSU No. 38 (20/21), July 15, 2021
- Resolution of the Academic Council No. 52 (22/23) – On approving the rules for the preparation of master's theses
- Personnel Data

[5] In case of necessity please add the appropriate number of tables for the educational programmes grouped in a cluster.

- Defended Master's Theses
- Interviews, site visit observations.

Recommendations and Suggestions according to the programmes:	Recommendation(s): Please, write the developed recommendations that apply equally to the educational programmes grouped in the cluster. Also, please indicate, according to individual programs (if any)	Suggestion(s): Please, write the developed suggestions that apply equally to the educational programmes grouped in the cluster. Also, please indicate, according to individual programs (if any)
General recommendations/ Suggestion of the Cluster		To further enhance the quality of master's thesis supervision, the programme may wish to consider organizing optional methodological workshops or seminars for both students and supervisors, focused on research design, academic writing, and ethical standards in research.
Programme 1 (Computer Science, BS)		
Programme 2 (Computer Science, MS)		

Evaluation

Please, evaluate the compliance of the programmes with the component

Component 3.2. Master's and Doctoral Student Supervision	Evaluation
Programme 1 (Computer Science, BS)	Complies with requirements
Programme 2 (Computer Science, MS)	Complies with requirements

4. Providing Teaching Resources

Accreditation standards indicators

Human, material, information and financial resources of educational programme/educational programmes grouped in a cluster ensure the sustainable, stable, efficient and effective functioning of the programme and the achievement of the defined objectives.

4.1 Human Resources

➢ Programme staff consists of qualified persons who have necessary competences in order to help students to achieve the programme learning outcomes.
➢ The number and workload of programme academic/scientific and invited staff ensures the sustainable running of the educational process and also, proper execution of their research/creative/performance activities and other assigned duties. Quantitative indicators related to academic/scientific/invited staff ensure programme sustainability.
➢ The Head of the Programme possesses necessary knowledge and experience required for

programme elaboration, and also the appropriate competences in the field of study of the programme. He/she is personally involved in programme implementation.
➢ Programme students are provided with an adequate number of administrative and support staff with relevant competence.

Summary and Analysis of the Compliance of the Educational Programmes Grouped in a Cluster with the Requirements of the Standard Component

Cluster evaluation

Description and Analysis of Cluster

The cluster programmes are delivered by a qualified and balanced mix of academic, scientific, and invited personnel. The engagement of staff complies with the legislation and internal regulations of ATSU, and the qualifications of both academic and invited personnel are consistent with their designated functions and programme learning outcomes. Staff qualifications are verified through doctoral degrees, publications, teaching experience, and professional activity in computer science and related fields.

The University maintains an academic workload scheme that is reviewed and updated every semester, covering teaching, research, and student consultation hours. This ensures the proper distribution of responsibilities and prevents overload across different programmes or institutions. The ratio between academic and invited staff, as well as between affiliated and non-affiliated members, is appropriate to sustain the programmes. Staff numbers correspond to the student population, ensuring effective mentoring and academic supervision.

The turnover of academic and invited personnel remains low, supporting programme continuity and stability. Heads of both programmes possess the required academic qualifications and professional experience, and they actively participate in programme management, student advising, and quality enhancement processes. Administrative and support staff are adequate in number and qualifications, providing timely and competent assistance to both staff and students.

While the programmes demonstrate sufficient human resource capacity and compliance with qualification requirements, it would be advisable to further refine the internal approach to monitoring research performance. Specifically, establishing clear indicators or qualitative criteria for evaluating academic staff's research activity could help ensure more consistent monitoring and promote continuous professional development. This is offered as an advice rather than a recommendation, since the current system already meets accreditation requirements but could be enhanced for long-term effectiveness.

Overall, the cluster demonstrates an effective and sustainable human resource structure. The qualifications, workload balance, and support mechanisms fully comply with the requirements of this sub-standard.

Individual evaluation

Description and Analysis - Programme 1 (Computer Science, BS)

The Bachelor's programme in Computer Science is implemented by a team of qualified academic and invited staff whose competencies and professional experience correspond to the

programme's aims and learning outcomes. Approximately half of the lecturers (11) are invited professionals from the ICT sector, five of whom hold doctoral degrees in relevant disciplines. Their engagement follows ATSU's established procedures and complies with higher education legislation.

Academic staff ensure the theoretical foundation of the programme, while invited lecturers, many of whom are ATSU graduates now employed in the ICT industry, bring valuable practical expertise. This combination fosters a balance between academic knowledge and applied skills, particularly in courses on cybersecurity, artificial intelligence, ethical hacking, and emerging programming languages.

Workload schemes are updated each semester and include teaching, research, and consultation activities. This allows equitable allocation of responsibilities and ensures sufficient time for student guidance. The ratio of staff to students is adequate for personalized instruction, and consultation hours are embedded within staff duties. The proportion of affiliated academic personnel guarantees programme sustainability, while the low turnover rate supports long-term continuity and quality.

The Head of Programme possesses a doctoral degree and combines academic and managerial experience in the field. Administrative and support staff effectively facilitate the learning process, maintaining smooth communication and technical assistance for both lecturers and students.

Overall, the staffing structure, balance between academic and invited personnel, and workload management fully meet the requirements of this sub-standard.

Individual evaluation

Description and Analysis - Programme 2 (Computer Science, MS)

The Master's programme in Computer Science is delivered primarily by ATSU's academic staff, ensuring continuity and a strong connection between research and teaching. Out of 13 personnel, 12 hold academic positions at ATSU and one is an invited lecturer with a doctoral degree. All possess qualifications and competencies relevant to the programme's scientific and professional focus.

Staff engagement complies with the university's internal regulations and national legal requirements. The academic staff's workload scheme is updated every semester and includes teaching, research, and consultation hours. The number of lecturers is sufficient for the student population, ensuring effective supervision and mentoring, especially during research and thesis preparation.

While the scientific publication rate among some academic staff could be enhanced, their expertise, professional background, and involvement in programme development confirm full compliance with qualification standards. The Head of Programme meets all institutional and legal requirements, holding a doctoral degree and actively participating in curriculum design, programme monitoring, and supervision of Master's research. Administrative and technical staff possess adequate qualifications and support the educational process efficiently.

The Master's programme demonstrates a sustainable and well-structured academic environment where staff qualifications, workload, and student ratios ensure high-quality teaching and supervision. The programme fully complies with the requirements of this sub-standard.

Programme 1 (Computer Science, BS)[6]				
Number of the staff involved in the programme (including academic, scientific, and invited staff)	**Number of Programme Staff**	**Including the staff with sectoral expertise[7]**	**Including the staff holding PhD degree in the sectoral direction[8]**	**Among them, the affiliated academic staff**
Total number of academic staff	**23**			
- Professor	2			
- Associate Professor	8		2	
- Assistant-Professor	2		1	
- Assistant				
Invited Staff	11	6	5	_
Scientific Staff				_
Including International Staff				

Programme 1 (Computer Science, MS)[9]				
Number of the staff involved in the programme (including academic, scientific, and invited staff)	**Number of Programme Staff**	**Including the staff with sectoral expertise[10]**	**Including the staff holding PhD degree in the sectoral direction[11]**	**Among them, the affiliated academic staff**
Total number of academic staff	**13**			
- Professor	3			
- Associate Professor	8	1	1	

[6] In case of necessity please add the appropriate number of tables for the educational programmes grouped in a cluster.
[7] Staff implementing the relevant components of the main field of study
[8] Staff with relevant doctoral degrees implementing the components of the main field of study
[9] In case of necessity please add the appropriate number of tables for the educational programmes grouped in a cluster.
[10] Staff implementing the relevant components of the main field of study
[11] Staff with relevant doctoral degrees implementing the components of the main field of study

- Assistant-Professor	1			
- Assistant				
Invited Staff	1		1	_
Scientific Staff				_
Including International Staff				

Evidences/Indicators

- Personnel qualification requirements and personal files of academic and invited staff.
- Information on publications, practical projects, and student evaluations of teaching quality.
- Functions and records of programme heads confirming their involvement in programme development and student advising.
- Job descriptions and records of administrative and support staff.
- Interview results with academic staff, students, and programme heads.

Recommendations and Suggestions according to the programmes:	Recommendation(s): Please, write the developed recommendations that apply equally to the educational programmes grouped in the cluster. Also, please indicate, according to individual programs (if any)	Suggestion(s): Please, write the developed suggestions that apply equally to the educational programmes grouped in the cluster. Also, please indicate, according to individual programs (if any)
General recommendations/ Suggestion of the Cluster		The University may consider developing additional indicators or guidelines for monitoring scientific and research activities to further enhance the consistency of academic staff performance evaluation Continue supporting the expansion of English-language instruction, in line with the ATSU's internationalization goals.
Programme 1 (Computer Science, BS)		
Programme 2 (Computer Science, MS)		

Evaluation

Please, evaluate the compliance of the programmes with the component

Component 4.1 Human Resources	Evaluation
Programme 1 (Computer Science, BS)	Complies with requirements
Programme 2 (Computer Science, MS)	Complies with requirements

4.2 Qualification of Supervisors of Master's and Doctoral Students

Accreditation standards indicators

Master's and Doctoral students have qualified supervisor/supervisors and, if necessary, co-supervisor/co-supervisors who have relevant scientific-research experience in the field of research.

Summary and Analysis of the Compliance of the Educational Programmes Grouped in a Cluster with the Requirements of the Standard Component

Cluster evaluation

Description and Analysis of Cluster

The University has developed transparent qualification requirements for supervisors and co-supervisors, consistent with both institutional policy and international best practice for Master's-level supervision. Supervisors are appointed based on relevant academic qualifications, research background, and field-specific expertise. All current supervisors hold doctoral degrees in Informatics or related areas and possess up-to-date knowledge required to guide students effectively in research design, methodology, and implementation.

Supervisors actively participate in scientific and academic activities, ensuring alignment between their expertise and students' research topics. Where co-supervisors are involved, they contribute complementary professional or research experience, further strengthening the quality of academic mentoring. The University maintains clear internal procedures for assigning supervision, ensuring balanced workloads and regular communication between students and supervisors.

Overall, the qualifications, experience, and engagement of the supervisors fully correspond to programme objectives and international standards. The cluster fully complies with the requirements of this sub-standard.

Individual evaluation

Description and Analysis - Programme 1 (Computer Science, BS)

Formal thesis supervision is not applicable at the Bachelor's level; however, students benefit from structured academic and practical mentoring within coursework and project-based components. Qualified academic staff and invited practitioners support students through consultations, lab sessions, and individual assignments, ensuring effective guidance and skill development.

This mentorship structure provides students with consistent academic feedback and fosters analytical, communication, and problem-solving skills. The mentoring process corresponds to the level and content of the programme and supports the achievement of its intended learning outcomes.

The programme complies with the requirements of this sub-standard.

Individual evaluation

Description and Analysis - Programme 2 (Computer Science, MS)

Supervision at the Master's level is provided almost exclusively by ATSU's academic personnel, appointed in accordance with transparent institutional criteria that align with national regulations and international supervision standards. All supervisors possess doctoral degrees and relevant field expertise, ensuring appropriate scientific and methodological guidance for students' thesis work.

Supervisors maintain active engagement in teaching and scientific activities, and their qualifications and experience correspond to the programme's objectives. Supervisory assignments are generally well aligned with students' research interests, and co-supervisors, when applicable, contribute additional academic or professional perspectives. In some instances, however, the thematic alignment between a supervisor's specialization and a student's chosen thesis is not fully consistent, which can occasionally limit the depth of academic guidance.

The University's internal framework for supervision defines workload distribution and consultation hours, ensuring balanced responsibilities and sufficient time for individual student support. Supervisors maintain ongoing communication with students, provide continuous feedback, and uphold principles of academic integrity and research ethics. While the University offers incentives to encourage scientific publications and research participation, these opportunities could be more actively utilized to further strengthen the research foundation of supervision.

Overall, supervisors' qualifications, engagement, and supervision processes meet programme-specific expectations and international best practices. The programme complies with the requirements of this sub-standard.

Programme 2 (Computer Science, MS)[12]			
Number of supervisors of Master's/Doctoral theses	**These supervisors**	**Including the supervisors holding PhD degree in the sectoral direction[13]**	**Among them, the affiliated academic staff**
Number of supervisors of Master's/Doctoral theses	**12**		

[12] In case of necessity please add the appropriate number of tables for the educational programmes grouped in a cluster.
[13] Theses supervisors having a PhD degree relevant to the qualification awarded by the educational programme.

- Professor	3		
- Associate Professor	7		
- Assistant-Professor	1		
Invited Staff	1	1	_
Scientific Staff			_
Including International Staff			

Evidences/Indicators

- Transparent qualification requirements for Master's supervisors and co-supervisors.
- Personal files and CVs of supervisors confirming compliance with requirements.
- Records of scientific publications and research projects involving supervisors.
- Master's thesis topics and allocation records showing supervisor-student matching.
- Interview results with supervisors and Master's students.

Recommendations and Suggestions according to the programmes:	**Recommendation(s):** Please, write the developed recommendations that apply equally to the educational programmes grouped in the cluster. Also, please indicate, according to individual programs (if any)	**Suggestion(s):** Please, write the developed suggestions that apply equally to the educational programmes grouped in the cluster. Also, please indicate, according to individual programs (if any)
General recommendations/ Suggestion of the Cluster		Encourage supervisors to make fuller use of the institution's incentives for research and publishing, thereby enhancing their scientific activity and supervision quality. Strengthen the matching process between thesis topics and supervisors' expertise to ensure closer alignment and deeper academic support for students.
Programme 1 (Computer Science, BS)		
Programme 2 (Computer Science, MS)		

Evaluation

Please, evaluate the compliance of the programmes with the component

Component 4.2 Qualification of Supervisors of Master's and Doctoral Students	Evaluation
Programme 1 (Computer Science, BS)	Complies with requirements
Programme 2 (Computer Science, MS)	Complies with requirements

4.3 Professional Development of Academic, Scientific and Invited Staff

Accreditation standards indicators

➢ The HEI conducts the evaluation of programme staff and analyses evaluation results on a regular basis.
➢ The HEI fosters professional development of the academic, scientific and invited staff. Moreover, it fosters their scientific and research work.

Summary and Analysis of the Compliance of the Educational Programmes Grouped in a Cluster with the Requirements of the Standard Component

Cluster evaluation

Description and Analysis of Cluster

ATSU systematically evaluates the performance of academic, scientific, and invited staff, incorporating both teaching and research activities into the assessment process. The results of these evaluations, together with staff satisfaction surveys, are actively analyzed and used to inform professional development, promotions, and improvement initiatives. This process ensures a clear and traceable connection between performance evaluation and the enhancement of academic quality.

The university organizes regular professional development activities at least once a year for academic and scientific personnel, including programme heads and supervisors of Master's students. These activities focus on teaching methodology, research supervision, and the use of e-learning and digital tools in instruction. The institution also provides the necessary material and financial resources to support scientific, research, and creative work, encouraging participation in conferences, research projects, and international collaborations - particularly with European universities.

Despite the availability of institutional incentives, participation in research-related development activities and publication initiatives remains inconsistent. Academic staff do not fully utilize the financial and administrative mechanisms designed to support scientific output. Strengthening engagement in these opportunities would further enhance the overall professional growth of staff and contribute to improved research capacity within the cluster.

The programmes fully comply with the requirements of this sub-standard.

Evidences/Indicators

- Results of staff evaluation and satisfaction surveys.
- Records of training, conferences, international cooperation, and exchange programmes.
- Documentation of institutional incentives for research/publications and related uptake.
- Records of staff involvement in international projects and scientific activities.
- Interview results with academic and invited staff.

Recommendations and Suggestions according to the programmes:	**Recommendation(s):** Please, write the developed recommendations that apply equally to the educational programmes grouped in the cluster. Also, please indicate, according to individual programs (if any)	**Suggestion(s):** Please, write the developed suggestions that apply equally to the educational programmes grouped in the cluster. Also, please indicate, according to individual programs (if any)
General recommendations/ Suggestion of the Cluster		Continue fostering international cooperation and participation in conferences, while expanding targeted training opportunities to further strengthen staff competences. The university could take further steps to motivate staff to make fuller use of research and publication incentives, thereby reinforcing the research dimension of the programmes.
Programme 1 (Computer Science, BS)		
Programme 2 (Computer Science, MS)		

Evaluation

Please, evaluate the compliance of the programmes with the component

Component 4.3 Professional Development of Academic, Scientific and Invited Staff	**Evaluation**
Programme 1 (Computer Science, BS)	Complies with requirements
Programme 2 (Computer Science, MS)	Complies with requirements

4.4. Material Resources

Accreditation standards indicators

The programme is provided with necessary infrastructure, information resources relevant to the field of study and technical equipment required for achieving programme learning outcomes.

Summary and Analysis of the Compliance of the Educational Programmes Grouped in a Cluster with the Requirements of the Standard Component

Cluster evaluation

Description and Analysis of Cluster

The programmes within the cluster are supported by library, laboratory, informational, and digital resources that are relevant, adequate, and accessible for achieving the intended learning outcomes. The library maintains the core and supplementary literature specified in course syllabi and provides access to international scientific databases, ensuring that students and staff can stay informed about current developments in the field.

The University regularly updates its educational and laboratory infrastructure. Both printed and electronic resources are available, and students are informed about how to access and effectively use them. Modern digital resources and licensed international databases are accessible, supporting research and coursework in both Georgian and English languages. The university also ensures access to e-learning and distance-learning platforms, allowing the continued use of appropriate study methods in hybrid or online formats when necessary.

While overall conditions are satisfactory, a few improvements are advisable. Master's theses are not yet electronically available in the library, which limits access to previous academic work. Additionally, during the field visit, computer laboratories were under renovation as part of ongoing modernization efforts, temporarily affecting accessibility. Despite these temporary constraints, material and digital resources remain sufficient to ensure continuous learning and programme delivery.

The programmes comply with the requirements of this sub-standard.

Individual evaluation

Description and Analysis - Programme 1 (Computer Science, BS)

The Bachelor's programme is provided with adequate and updated material and digital resources that support both theoretical and practical learning components. The university library contains the core and supplementary literature indicated in the syllabi, while students also have access to international electronic databases and scientific journals. These resources ensure consistency between teaching materials and programme learning outcomes.

Computer laboratories and technical facilities are available to students and are being further upgraded as part of the campus renovation. Even with temporary inaccessibility during the renovation period, alternative learning arrangements ensured the continuity of laboratory-based teaching and coursework. Students are well informed about the available learning resources and the procedures for accessing them.

The programme complies with the requirements of this sub-standard.

Individual evaluation

Description and Analysis - Programme 2 (Computer Science, MS)

At the Master's level, the material and digital resources adequately support the programme's research-oriented nature. The library provides access to core and supplementary materials, international databases, and up-to-date scientific literature, enabling students to engage with the latest research in their field.

Students and supervisors have access to digital platforms and laboratory resources essential for conducting advanced research, including online databases and e-learning tools that support blended and distance learning when required. While the existing facilities are generally sufficient, the lack of electronic access to previously defended Master's theses slightly limits the sharing of best academic practices. Nevertheless, the university's continuous investment in upgrading laboratory infrastructure and maintaining access to modern databases ensures that students and staff have the necessary tools to achieve programme objectives.

The programme complies with the requirements of this sub-standard.

Evidences/Indicators

- Library catalogues and records of literature and electronic resources.
- Access to international electronic library databases.
- Documentation on material and digital resources used in the programmes.
- Information on computer laboratory facilities and renovation process.
- Interview results with students and staff on availability and use of resources.

Recommendations and Suggestions according to the programmes:	Recommendation(s): Please, write the developed recommendations that apply equally to the educational programmes grouped in the cluster. Also, please indicate, according to individual programs (if any)	Suggestion(s): Please, write the developed suggestions that apply equally to the educational programmes grouped in the cluster. Also, please indicate, according to individual programs (if any)
General recommendations/ Suggestion of the Cluster		Ensure the timely completion of computer laboratory renovations to restore full access for students.
Programme 1 (Computer Science, BS)		
Programme 2 (Computer Science, MS)		Provide electronic access to Master's theses in the library to facilitate wider use of research outputs.

Evaluation

Please, evaluate the compliance of the programmes with the component

Component 4.4. Material Resources	Evaluation
Programme 1 (Computer Science, BS)	Complies with requirements
Programme 2 (Computer Science, MS)	Complies with requirements

4.5. Programme/Faculty/School Budget and Programme Financial Sustainability

Accreditation standards indicators

The allocation of financial resources stipulated in programme/faculty/school budget is economically feasible and corresponds to the programme needs.

Summary and Analysis of the Compliance of the Educational Programmes Grouped in a Cluster with the Requirements of the Standard Component

Cluster evaluation

Description and Analysis of Cluster

The HEI has submitted a budget for both programmes grouped in clusters consisting of the tuition fee revenues for the optimal number of students - 10. The financial plan mainly covers the costs for the lecturers' salaries and research expenses. The indirect expenses include administrative and support staff salaries, infrastructure and maintenance costs as well as other relevant indirect expenses. According to the budget, the Computer Science master's programme income constitutes 61 880 GEL, whereas the expenses correspond to 59 381 GEL. In the case of a Computer Science bachelor's program, the income is supposed to be 59 381 and the estimated cost constitutes 53 983.

According to the data available in the documentation submitted to the accreditation experts, 4 500 GEL is designated for infrastructure and 3 000 for other communal or budgetary expenses. 3 000 GEL are designated for research activities. The interviews and relevant documentation revealed that the university and faculty budgets are allocated for other relevant expenses, especially related to the programme development, scholarships and incentives. The university has also allocated the proportion in the faculty budget for purchasing literature and other material resources required for computer science programmes.

Individual evaluation - An individual evaluation of the doctoral educational program or of the educational program for which a recommendation and/or advice is issued.

Description and Analysis - Programme 1 (Name and Level)

Describe, analyse and evaluate the compliance of the doctoral level educational programme, or the educational program for which a recommendation and/or suggestion is issued, with the requirements of the component of the standard, based on the information collected through the self-evaluation report (SER), the enclosed documents and site-visit.

Evidences/Indicators

- Self-evaluation report
- Budget
- Interview results

Recommendations and Suggestions according to the programmes:	Recommendation(s): Please, write the developed recommendations that apply equally to the educational programmes grouped in the cluster. Also, please indicate, according to individual programs (if any)	Suggestion(s): Please, write the developed suggestions that apply equally to the educational programmes grouped in the cluster. Also, please indicate, according to individual programs (if any)
General recommendations/ Suggestion of the Cluster		
Programme 1 (Computer Science, BS)		
Programme 2 (Computer Science, MS)		

Evaluation

Component 4.5. Programme/Faculty/School Budget and Programme Financial Sustainability	Evaluation
Programme 1 (Computer Science, BS)	Complies with requirements
Programme 2 (Computer Science, MS)	Complies with requirements

5. Teaching Quality Enhancement Opportunities

In order to enhance teaching quality, programme utilizes internal and external quality assurance services and also periodically conducts programme monitoring and programme review. Relevant data is collected, analysed and utilized for informed decision making and programme development.

5.1. Internal Quality Evaluation

Accreditation standards indicators

Programme staff collaborates with internal quality assurance department(s)/staff available at

the HEI when planning the process of programme quality assurance, developing assessment instruments, and implementing assessment process. Programme staff utilizes quality assurance results for programme improvement.

Summary and Analysis of the Compliance of the Educational Programmes Grouped in a Cluster with the Requirements of the Standard Component

Cluster evaluation

Description and Analysis of Cluster

Internal Quality Assurance mechanisms at Akaki Tsereteli State University are defined by the regulation of Quality Assurance and relevant concepts. The internal quality service is focused at quality assurance at the programme level, research development policy and management effectiveness enhancement policy. Therefore, internal quality assurance includes the systemic surveys and evaluations of curricula, services, and resources. QA Office focuses on annual surveys, involving all stakeholders to analyze assessment results to maintain effective monitoring, identify objectives with strategic development and articulate development tendencies. In accordance with the evaluation of the submitted documents and accreditation visit findings, programme evaluation is consistent at university and assessment results are generally utilized for programme improvement.

Programme quality assurance is based on the PDCA – "plan – do – check – act" principle. Students, graduates, employers, academic and invited staff are involved in the internal quality assessment process. The QA office cooperates and encourages the involvement of the programme staff to ensure the constructive evaluation process, therefore, a self-evaluation report of the programme is prepared with the involvement of academic and administrative staff, as well as students and employers. The interviews confirmed that self-assessment process and relevant task distribution among the working group has ensured to identify the areas for improvements during and after the evaluation process, as well as relevant possibilities for future development.

Necessity-based and need assessment surveys are used by internal quality evaluation processes for purposely identifying the problems and ensuring quality improvement interventions. These surveys are targeted to identify the necessities, needs, and wants of the students, as well as annual students and staff satisfaction surveys, are conducted for assessing the general administration of the programme and availability of services.

ATSU has implemented the practice of internal inspection, when colleagues having experience as educational programme experts are evaluating the educational programmes and are engaged in training provided for the academic staff.

Individual evaluation - An individual evaluation of the doctoral educational program or of the educational program for which a recommendation and/or advice is issued.

Description and Analysis - Programme 1 (Name and Level)

Describe, analyse and evaluate the compliance of the doctoral level educational programme, or the educational program for which a recommendation and/or suggestion is issued, with the requirements of the component of the standard, based on the information collected through the self-evaluation report (SER), the enclosed documents and site-visit.

Evidences/Indicators

- Self-evaluation report
- Quality Assurance Concept
- Survey reports and forms
- Internal assessments
- Interview results

Recommendations and Suggestions according to the programmes:	**Recommendation(s):** Please, write the developed recommendations that apply equally to the educational programmes grouped in the cluster. Also, please indicate, according to individual programs (if any)	**Suggestion(s):** Please, write the developed suggestions that apply equally to the educational programmes grouped in the cluster. Also, please indicate, according to individual programs (if any)
General recommendations/ Suggestion of the Cluster		
Programme 1 (Computer Science, BS)		
Programme 2 (Computer Science, MS)		

Evaluation

Please, evaluate the compliance of the programmes with the component

Component 5.1. Internal Quality Evaluation	**Evaluation**
Programme 1 (Computer Science, BS)	Complies with requirements
Programme 2 (Computer Science, MS)	Complies with requirements

5.2. External Quality Evaluation

Accreditation standards indicators

Programme utilizes the results of external quality assurance on a regular basis.

Summary and Analysis of the Compliance of the Educational Programmes Grouped in a Cluster with the Requirements of the Standard Component

Cluster evaluation
Description and Analysis of Cluster

External quality assurance at ATSU is mainly carried out through Accreditation and Authorization Processes, maintained by the National Center for Educational Quality Enhancement. The University reviews recommendations and suggestions and the findings are introduced to the head of the programme for further consideration. The QA office ensures compliance of the developments with the received recommendations.

The Master's program in Computer Science programmes has gone through the extensive external evaluation process in 2022, when the programme received accreditation. All recommendations issued by the accreditation council have been addressed while preparing the program for reaccreditation. Since the Computer Science Bachelor's Program in English is new, the HEI and program leaders have assured the experts panel that the findings and developmental evaluation results will also be considered.

The HEI also ensures peer review as a part of an external evaluation process. The programme has been positively evaluated by the local field experts from Alte University and University of Georgia. Along with the strong aspects, the experts also identified some prospects for further development that have been considered while working on the self-evaluation of the programs.

Individual evaluation - An individual evaluation of the doctoral educational program or of the educational program for which a recommendation and/or advice is issued.

Description and Analysis - Programme 1 (Name and Level)

Describe, analyse and evaluate the compliance of the doctoral level educational programme, or the educational program for which a recommendation and/or suggestion is issued, with the requirements of the component of the standard, based on the information collected through the self-evaluation report (SER), the enclosed documents and site-visit.

Evidences/Indicators

- Self-evaluation report
- Quality Assurance Concept
- Survey reports and forms
- Internal assessments
- External peer review
- Interview results

Recommendations and Suggestions according to the programmes:	Recommendation(s): Please, write the developed recommendations that apply equally to the educational programmes grouped in the cluster. Also, please indicate, according to individual programs (if any)	Suggestion(s): Please, write the developed suggestions that apply equally to the educational programmes grouped in the cluster. Also, please indicate, according to individual programs (if any)
General recommendations/ Suggestion of the Cluster		
Programme 1 (Computer Science, BS)		
Programme 2 (Computer Science, MS)		

Evaluation

Please, evaluate the compliance of the programmes with the component

Component 5.2. External Quality Evaluation	Evaluation
Programme 1 (Computer Science, BS)	Complies with requirements
Programme 2 (Computer Science, MS)	Complies with requirements

5.3. Programme Monitoring and Periodic Review

Accreditation standards indicators

Programme monitoring and periodic evaluation is conducted with the involvement of academic, scientific, invited, administrative, supporting staff, students, graduates, employers and other stakeholders through systematic data collection, study and analysis. Evaluation results are applied for the programme improvement.

Summary and Analysis of the Compliance of the Educational Programmes Grouped in a Cluster with the Requirements of the Standard Component

Cluster evaluation

Description and Analysis of Cluster

For programme development and service improvement, the QA Office at ATSU ensures monitoring and periodic assessment. The assessment and evaluation process involve internal and external stakeholders. Surveys with academic and administrative staff, students, graduates, and employers are central tools for implementing strategic visions of the university. At the end of every compulsory course, students evaluate the course by completing a course evaluation form, in case of necessity focus groups are also organized. Satisfaction and need

assessment surveys are used to identify improvements and priorities, to ensure an effective monitoring process. Results of the evaluation process are distributed among the stakeholders and are used for the programme improvements.

At the end of each semester, the Quality Assurance Department monitors the students' academic performance, and the evaluation results are used by the University administration to improve educational processes. Master students also evaluate the process of supervision and supervisors through a structured evaluation criteria. At the end of each academic year, a self-evaluation report is prepared, considering the statistical indicators, results of internal evaluation, evaluation of staff, SWOT analysis and QA assessment. Based on the internal evaluation findings, the programme is improved and modified.

Programme benefits from the practice of classroom observation by peers of the same and related programmes. Mutual attendance and assessment of classroom work and environment contributes to the sharing experiences and provides a platform for cooperative attitudes between the programme staff.

The HEI ensures benchmarking for the local and international available practices to develop a competitive and individual programme. Computer Science bachelor and master programmes take into consideration the related programmes at University of Rennes, „Alexandru Ioan Cuza" University, San Diego University and Vilnius University. Other than that, interviews have revealed that the programmes incorporate local and international practices and requirements for the further development.

Individual evaluation - An individual evaluation of the doctoral educational program or of the educational program for which a recommendation and/or advice is issued.

Description and Analysis - Programme 1 (Name and Level)

Describe, analyse and evaluate the compliance of the doctoral level educational programme, or the educational program for which a recommendation and/or suggestion is issued, with the requirements of the component of the standard, based on the information collected through the self-evaluation report (SER), the enclosed documents and site-visit.

Evidences/Indicators

- Self-evaluation report
- Quality Assurance Concept
- Survey reports and forms
- Internal assessments
- External peer review
- Internal programmes evaluation
- Benchmarking for analogue programs
- Interview results

Recommendations and Suggestions according to the programmes:	Recommendation(s): Please, write the developed recommendations that apply equally to the educational programmes grouped in the cluster. Also, please indicate, according to individual programs (if any)	Suggestion(s): Please, write the developed suggestions that apply equally to the educational programmes grouped in the cluster. Also, please indicate, according to individual programs (if any)
General recommendations/ Suggestion of the Cluster		
Programme 1 (Computer Science, BS)		
Programme 2 (Computer Science, MS)		

Evaluation

Please, evaluate the compliance of the programmes with the component

Component 5.3. Programme Monitoring and Periodic Review	Evaluation
Programme 1 (Computer Science, BS)	Complies with requirements
Programme 2 (Computer Science, MS)	Complies with requirements

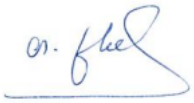
Attached documentation (if applicable):

Signatures

Chair of Accreditation Experts Panel

Seifedine Kadry, 

Of the member(s) of the Accreditation Experts Panel

Tamta Tskhovrebadze, signature 

Giorgi Iashvili, signature 

Nino Jolia, signature