

ბანათლების ხარისხის ბანვითარების ერღვნული ცენტრი NATIONAL CENTER FOR EDUCATIONAL QUALITY ENHANCEMENT

Accreditation Expert Group Report on Higher Education Programme

Bachelor Programme in Computer Science Georgian Technical University

Date of Evaluation: 16 October 2019

Report Submission Date: 1 December 2019

Tbilisi 2019

HEI's Information Profile

Name of Institution Indicating its Organizational	Georgian Technical University
Legal Form	
HEI's Identification Code	211349192
Type of Institution	University

Higher Education Programme Information Profile

Name of the Programme	Computer Science
Level of Education	Bachelor
Qualification Granted Indicating Qualification	Bachelor in Computer Science
Code	0613
Language of Instruction	English
Number of Credits	240
Programme Status (Authorized/ Accredited/New)	New

Expert Panel Members

Chair (Name, Surname,	Donald Sannella,
University/organization/Country)	University of Edinburgh,
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Accreditation Report Executive Summary

General information on the education programme

The proposed education programme is for a Bachelor in Computer Science, with English as the language of instruction, and a focus on designing, implementing and applying big data systems in a variety of application fields. The programme covers a broad range of topics in Computer Science (software, hardware, programming, databases, networks, artificial intelligence, etc.) with specialised courses on big data, machine learning and cloud computing. Its design takes the content of

undergraduate Computer Science programmes in leading international universities into account, in order to ensure that it conforms to international standards for education in Computer Science. The programme duration is 4 years (8 semesters) and requires completion of a minimum of 240 ECTS credits.

Brief overview of the accreditation site-visit

Before the accreditation site visit, all members of the Expert Panel were supplied with a 53-page selfevaluation report together with a detailed specification of the proposed programme, detailed syllabi of the courses on the programme, information on GTU's internal Quality Assurance mechanisms, CVs of programme staff, memoranda concerning cooperation with foreign universities, GTU's rules on planning and development of new educational programmes, and a summary of learning methods of activities.

The Expert Panel visited the Faculty of Informatics and Control Systems at Georgian Technical University on 16 October 2019 and interviewed members of the university administration, the team responsible for the self-evaluation report including the head of the programme, members of academic staff and invited staff, heads of university and faculty quality assurance, students, alumni and employers, and were given a tour of the programmes's facilities. Since the programme is new, students and alumni were from a related English-language Bachelor programme in Biomedical Engineering.

The Expert Panel expresses its sincere thanks for the cooperation of all participants and their participation in discussions during the site visit.

- Summary of education programme's compliance with the standards

The programme complies with all standards apart from standards 2.3, 4.1 and 4.4 with which it substantially complies.

Summary of Recommendations

- 1. The name and description of the course "Final Project in Cloud Computing and/or Big Data Processing" should be changed to avoid suggesting that projects are restricted to those topics.
- 2. The list of references in the syllabus for the course "Cloud Computing" should be corrected.
- 3. Define English language fluency requirements for lecturers and ensure that all involved lecturers meet those requirements.
- 4. Provide a reasoned justification of the number of expected students on the programme.

Summary of Suggestions

- 1. The correctness of the ECTS credit allocation for each course should be checked from time to time by asking students to keep records of the time they spend on the work for that course.
- 2. The "professional development center" should create some teaching-oriented English language courses for lecturers.

• Summary of best practices (If Applicable)

• In case of accredited programme, summary of significant accomplishments and/or progress (If Applicable)

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 in order to improve the programme.

1.1 Programme Objectives

Programme objectives define the set of knowledge, skills and competences the programme aims to develop in graduate students. They also illustrate the contribution to the development of the field and the society.

Descriptive summary and analysis of compliance with standard requirements

The reviewed programme is a bachelor level programme in Computer Science, with teaching in English. The purpose of the programme is to provide students with knowledge of the basic problems and issues of Computer Science, and in particular, its modern and current directions, including big data systems. The programme objectives are clearly defined and achievable.

The programme meets Georgian Technical University's mission as well as standards of both the Georgian and the international market. It delivers everything students need to grow and adapt in a competitive environment.

While designing the programme objectives, the needs and interests of employers and students as well as the labour market have been taken into account.

The programme is new and therefore has no students currently, but discussion with the programme head, students and alumni from similar programmes confirmed that the University pays great attention to continuous development.

The University participates in educational fairs and international exchange programmes. They have students from foreign countries, mostly India.

Evidences/indicators

- Self-evaluation report
- The Bachelor Education Program "Computer Science"
- GTU's mission <u>http://gtu.ge/AboutStu/Mission.php</u>
- Interviews with the administration, self-evaluation team, students and employers

Recommendations:

Suggestions for programme development:

Best Practices (if applicable):

In case of accredited programme, significant accomplishments and/or progress

Evaluation

X Complies with requirements

□ Substantially complies with requirements

□ Partially complies with requirements

 \Box Does not comply with requirements

1.2. Programme Learning Outcomes

- Programme learning outcomes describe knowledge, skills, and/or the sense of responsibility and autonomy, students gain upon completion of the programme;
- Programme learning outcomes assessment cycle consists of defining, collecting and analysing data;
- Programme learning outcomes assessment results are utilized for the improvement of the programme.

Descriptive summary and analysis of compliance with standard requirements

The description of the programme gives a list of ten learning outcomes. It also gives a list of teaching methods for achieving learning outcomes, with information about assessment, and lists the courses on the programme and the mapping between courses and programme learning outcomes..

The learning outcomes are clear and explicit and are relevant to achieving the objectives of the programme. They are achievable and realistic, and are relevant to the objectives of the programme. The programme is compatible with the level of knowledge, skills and values defined by the descriptor of the Bachelor level of qualification in the higher education qualification framework. Learning outcomes for each module represent outcomes of the learning process that are measurable at the subject level. Each module leads the student step-by-step to the desired outcomes of the programme.

Graduates are competitive in the labour market, in both public and private organisations. Interviews with students from similar programmes and employers confirmed that both students and employers are satisfied with the level of knowledge and skills that students acquire before finishing the programme.

Evidences/indicators

- Self-evaluation report
- The Bachelor Education Program "Computer Science"
- Study course syllabi
- Laboratories of the Faculty of Informatics and Management Systems

Best Practices (if applicable):

In case of accredited programme, significant accomplishments and/or progress

Evaluation

X Complies with requirements

□ Substantially complies with requirements

□ Partially complies with requirements

 \Box Does not comply with requirements

Programme's Compliance with Standard

Standard	Complies with	Substantially	Partially	Does not Comply
	Requirements	complies with	Complies with	with Requirements
		requirements	Requirements	
Educational	X			
programme				
objectives,				
learning outcomes				
and their				
compliance with				
the programme				

2. Teaching methodology and organization, adequate evaluation of programme mastering

Programme admission preconditions, programme structure, content, teaching and learning methods, and student assessment ensure the achievement of programme objectives and intended learning outcomes.

2.1. Programme Admission Preconditions

Higher education institution has relevant, transparent, fair, public and accessible programme admission preconditions.

Descriptive summary and analysis of compliance with standard requirements

Admission to the programme requires possession of the Georgian state certificate confirming completion of the general education course or equivalent, plus certification of knowledge of English at a minimum of B2 or TOEFEL Level II. Applicants who have received education in English are exempt from the English requirement. In the absence of a relevant certification of English ability, competence in English will be assessed through an interview in English by GTU staff. In addition, admission is granted to foreign citizens based on the rules established by the

Ministry of Education and Science of Georgia, and transfers to the programme are permitted to bachelor students of other GTU faculties or other higher education institutions on the basis of the established mobility rules.

The admission requirements of the programme are clear and fair, and are consistent with legislation. The admission requirements of existing educational programmes are published on GTU's website, and the same is to be expected for this new programme, once it is accredited.

The programme admission requirements ensure that the students admitted have the background, knowledge and skills that are required to pursue studies on the programme, including the required level of English ability.

Evidences/indicators

- Self-evaluation report
- The Bachelor Education Program "Computer Science"
- Website http://gtu.ge/Eng/Study/Eng-Lang-Educational-Programs.php
- Interview with head of programme and self-evaluation team

Recommendations:

Suggestions for programme development:

Best Practices (if applicable):

In case of accredited programme, significant accomplishments and/or progress

Evaluation

X Complies with requirements

- □ Substantially complies with requirements
- □ Partially complies with requirements
- □ Does not comply with requirements

2.2 Educational Programme Structure and Content

Programme is designed according to HEI's methodology for planning, designing and developing of educational programmes. Programme content takes programme admission preconditions and programme learning outcomes into account. Programme structure is consistent and logical. Programme content and structure ensure the achievement of programme learning outcomes. Qualification to be granted is consistent with programme content and learning outcomes.

Descriptive summary and analysis of compliance with standard requirements

The programme has been designed in accordance with GTU's rules for planning and designing educational programmes. It is structured in accordance with Georgian legislation and the ECTS system, and is in line with ABET accreditation standards. The programme content is appropriate for a Bachelor level degree.

The content and structure of the programme is designed to ensure the achievement of the programme learning outcomes. There is clear documentation showing the correspondence between courses and programme-level learning outcomes. In almost all cases, each programme-level learning outcome relates to multiple courses that "familiarise" the student with that learning outcome, plus courses that "deepen" the student's understanding of that learning outcome, and finally courses that "strengthen" what the student has learned under that heading. An exception is the programme-level learning outcome "Participation in the formation of values and moral norms and striving to establish them", where there is no corresponding course marked as "deepening", but there are three courses marked as "strengthening".

The components of the programme are logically structured, with prerequisites that are consistent with course content and an appropriate range of elective courses. Programme content takes account of recent scientific achievements. Semester 1 is devoted to courses in Mathematics and Physics and foundational courses in Computer Science. Courses in Semesters 2-4 cover basics of Computer Science, and natural sciences. Courses in Semesters 5-7 cover more specialised topics in Computer Science, including elective courses in semesters 6 (choice between two courses) and 7 (choice between three courses) and both course and individual projects. In Semester 8, students selected from the offered free components (50 credits available) and courses elsewhere in the university as a way of expanding his/her field of interest.

There is evidence that most stakeholders were involved in designing the programme. For example, the selfevaluation report includes results of a survey of potential employers concerning their need for graduates in Computer Science having the training provided by the programme. A possible exception is current students - none of the students interviewed remembered being consulted. However the group that designed the programme included a Masters student, according to the self-evaluation report.

Comprehensive information on existing educational programmes is available at GTU's website, and the same is to be expected for this new programme, once it is accredited.

Evidences/indicators

- Self-evaluation report
- The Bachelor Education Program "Computer Science"
- Study course syllabi
- "Rules of Planning, Development, Evaluation and Development of Educational Programs at GTU"
- Map showing the relationship between courses and programme-level learning outcomes
- Website http://gtu.ge/Eng/Study/Eng-Lang-Educational-Programs.php
- Interviews with members of the university administration, the head of programme and self-evaluation team, students, academic staff and invited staff, and employers

Recommendations:

Suggestions for programme development:

Best Practices (if applicable):

In case of accredited programme, significant accomplishments and/or progress

Evaluation

X Complies with requirements

□ Substantially complies with requirements

□ Partially complies with requirements

 \Box Does not comply with requirements

2.3 Course

- Student learning outcomes of each compulsory course are in line with programme learning outcomes; Moreover, each course content and number of credits correspond to course learning outcomes;
- Teaching materials listed in syllabi are based on the core achievements in the field and ensure the achievement of intended programme learning outcomes.

Descriptive summary and analysis of compliance with standard requirements

Learning outcomes for each course in the educational programme are in line with programme-level learning outcomes, as shown by the supplied mapping between the learning outcomes at the two levels, and with the descriptor of the Bachelor level of qualification in the higher education qualification framework.

The content of each course is aligned with the learning outcomes for that course. Information in the syllabus for each course indicates that the assessment covers all of the learning outcomes. When asked, students indicated that measures of assessment are appropriate to course content.

The number of ECTS credits for each course is in line with the content and learning outcomes of the course, and with the number of contact hours and the teaching methods used. When asked, students indicated that they were not asked to keep track of the time that they actually spent on work for individual courses. Such feedback from students would be a useful check on the ECTS credit allocation for courses.

The references listed in each of the course syllabi are appropriate to that course, are based on the core achievements in the field as well as reflecting recent research, and correspond to the course learning outcomes. An exception is the references listed in the syllabus of the course "Cloud Computing" where the main reference given is a Springer Link search returning nearly 50,000 items, and one of the two additional references given is an AWS search returning more than 20,000 items.

The Expert Panel asked whether projects in the course "Final Project in Cloud Computing and/or Big Data Processing" are restricted to topics relating to cloud computing and/or big data processing, since projects on other topics would also be appropriate as final projects for the proposed programme. The head of the programme replied that no such restriction was intended. The title of the course and some aspects of the description indicate that projects are restricted to those topics, so those details need to be corrected.

Evidences/indicators

- Self-evaluation report
- The Bachelor Education Program "Computer Science"
- Study course syllabi
- Map showing the relationship between courses and programme-level learning outcomes
- Interviews with head of programme and self-evaluation team, students, and academic staff and invited staff

Recommendations:

- The name and description of the course "Final Project in Cloud Computing and/or Big Data Processing" should be changed to avoid suggesting that projects are restricted to those topics.
- The list of references in the syllabus for the course "Cloud Computing" should be corrected.

Suggestions for programme development:

• The correctness of the ECTS credit allocation for each course should be checked from time to time by asking students to keep records of the time they spend on the work for that course.

Best Practices (if applicable):

In case of accredited programme, significant accomplishments and/or progress

Evaluation

- $\hfill\square$ Complies with requirements
- X Substantially complies with requirements
 - □ Partially complies with requirements
- □ Does not comply with requirements

2.4 The Development of practical, scientific/research/creative/performance and transferable skills

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

Descriptive summary and analysis of compliance with standard requirements

A tour of the institution facilities (library, classrooms, offices, etc.) confirmed that the university has a substantial material base for practical work and group projects which further enhances the implementation of a research component in a graduate project experience which gives students the ability, experience and skills to conduct scientific research independently and promotes the development of a professional research culture.

The university has exchange programmes with many foreign universities which give students opportunities to work in a different system and gain experience in scientific research. During the interview with students from similar programmes, they mentioned that they are happy with the opportunities that exchange programmes gives them. These programmes are also used by students from other countries to come to Georgian Technical University.

The university has memoranda with different companies which allows students to take part in projects with employers to gain work skills and experience.

Evidences/indicators

- Self-evaluation report
- Rules for conducting and evaluating practices
- The rule for checking for scientific plagiarism in GTU
- Agreements, Memoranda
- GTU scientific work collection
- Interviews with students and employers

Recommendations:

Suggestions for programme development:

Best Practices (if applicable):

In case of accredited programme, significant accomplishments and/or progress

Evaluation

X Complies with requirements

- □ Substantially complies with requirements
- □ Partially complies with requirements
- □ Does not comply with requirements

2.5 Teaching and learning methods

Program is implemented using student centered teaching and learning (SCL) methods. Teaching and learning methods correspond to the level of education, course content, student learning outcomes and ensure their achievement.

Descriptive summary and analysis of compliance with standard requirements

Teaching methods used in various components of the programme ensure the achievement of programme learning outcomes. The methods used are:

- 1. Lectures: A creative process involving both a lecturer and a student. The main purpose of the lecture is to understand the ideas of the subject matter to be studied.
- 2. Seminars (working in a group): The purpose of the seminar is to provide students with an opportunity to deepen the topics learned during the lecture. A student or group of students will find and process additional information, prepare a presentation and more, as instructed by the professor or seminar teacher
- 3. Laboratory work: During laboratory work, students conduct experiments. Skills developed in experimental learning laboratories provide insights into the theoretical material heard in lectures.
- 4. Practical training: The purpose of practical training is progressive learning of theoretical material through solving concrete tasks, which is the basis for the development of an ability to apply theoretical material independently.

Before receiving a Bachelor's degree, students are required to do a project. The project process is a combination of theory and practice. This is the student's first independent work, though conducted under the supervision of a mentor.

Interviews with academic staff, affiliated teaching staff and students confirmed that teachers do use various teaching methods according to the syllabi and constantly try to enrich their teaching.

Students were happy about the lecturers and the way that they managed the teaching processes.

Evidences/indicators

- Self-evaluation report
- The Bachelor Education Program "Computer Science"
- Study course syllabi
- Learning-teaching methods and relevant activities
- Interview with students

Recommendations:

Suggestions for programme development:

Best Practices (if applicable):

In case of accredited programme, significant accomplishments and/or progress

Evaluation

- X Complies with requirements
- □ Substantially complies with requirements
- □ Partially complies with requirements
- □ Does not comply with requirements

2.6. Student Evaluation

Student evaluation is conducted in accordance with established procedures. It is transparent and complies with existing legislation.

Descriptive summary and analysis of compliance with standard requirements

The evaluation criteria, which are described in the programme description document, are tailored to each course and explained in the respective course syllabi.

Students' knowledge is evaluated on a 100-point scale.

Positive evaluations are:

- (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.

Negative evaluations are:

(FX) Did not pass an exam - 41-50 points, that means that a student requires some more work before passing an exam and is granted the right to take one additional exam by working independently

(F) Failed -40 and less scores of evaluation, which means that the work carried out by the student is not enough and he/she has to retake the course.

The academic course evaluation scale of 100 points includes two components: midterm evaluation (maximum 60 points) and final examination (maximum 40 points). Midterm assessment forms are current activities (maximum 30 points) and mid-semester exam (maximum 30 points). Students have an opportunity to receive information on knowledge assessment mechanisms from an educational programme, syllabus, specific subject's lecturer or programme head.

The Examination Center of the University is responsible for organizing and holding written examinations. Examination results are recorded in the official Student Information System and are accessible by students

The interview with students made it clear that the evaluation criteria are transparent and understandable to students and are presented and explained to them during the first teaching week of each course. This ensures student awareness regarding achieved results, which may be used by students to resolve flaws and improve their results.

Students also have the opportunity to appeal their marks or give their opinion regarding a specific subject, syllabi or any other ideas they might have. The teaching staff provides feedback to students after each assignment.

Evidences/indicators

- Self-evaluation report
- The Bachelor Education Program "Computer Science"
- Study course syllabi
- GTU Academic Performance Monitoring System: <u>https://leqtori.gtu.ge/</u>
- The rule for performing Bachelor Thesis
- The rule for conducting exams by electronic system of assessment

Recommendations:

Suggestions for programme development:

Best Practices (if applicable):

In case of accredited programme, significant accomplishments and/or progress

Evaluation

X Complies with requirements

□ Substantially complies with requirements

□ Partially complies with requirements

 \Box Does not comply with requirements

Programme's Compliance with Standard

Standard	Complies with	Substantially	Partially Complies	Does not Comply
	Requirements	complies with	with	with
		requirements	Requirements	Requirements

Teaching	Х		
methodology and			
organization,			
adequate			
evaluation of			
programme			
mastering			

3. Student achievements and individual work with them

HEI creates student-centered environment by providing students with relevant services; programme staff ensures students' familiarity with the named services, organizes various events and fosters students' involvement in local and/or international projects.

3.1. Student support services

Students receive appropriate consultations and support regarding the planning of learning process, improvement of academic achievement, employment and professional development.

Descriptive summary and analysis of compliance with standard requirements

The Study Process Administrator functions as a student's advisor and helps students to choose study components, provides relevant information on issues related to the University, and solves problems related to educational issues.

There is an electronic Student Information System which provides students with access to assessment results, and information about the ongoing processes and news at the GTU.

Overall the students are well-informed about ongoing processes, news or exchange programmes they might be interested in.

Georgian Technical University helps students who have difficulties paying tuition fees. In most cases, the student is given the option of postponing the payment for continuing their studies.

Evidences/indicators

- Self-evaluation report
- The Bachelor Education Program "Computer Science"
- Study course syllabi
- The provision of student self-government of the GTU
- Interviews with students, academic staff and the self-evaluation team

Recommendations:

Suggestions for programme development:

Best Practices (if applicable):

In case of accredited programme, significant accomplishments and/or progress

Evaluation

X Complies with requirements

□ Substantially complies with requirements

□ Partially complies with requirements

□ Does not comply with requirements

3.2. Master's and Doctoral Student supervision – NOT APPLICABLE Master's and Doctoral students have qualified thesis supervisors. Descriptive summary and analysis of compliance with standard requirements **Evidences/indicators Recommendations:** Suggestions for programme development: **Best Practices (if applicable):** In case of accredited programme, significant accomplishments and/or progress Evaluation \Box Complies with requirements □ Substantially complies with requirements □ Partially complies with requirements □ Does not comply with requirements

Programme's Compliance with Standard

Standard	Complies with Requirements	Substantially complies with requirements	Partially Complies with Requirements	Does not Comply with Requirements
Student achievements and individual work with them	X			

4. Providing teaching resources

Programme human, material, information and financial resources ensure programme sustainability, its effective and efficient functioning, and achievement of intended objectives.

4.1 Human Resources

- Programme staff consists of qualified people who have necessary competences in order to help students achieve 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. Balance between academic and invited staff ensures programme sustainability;
- The Head of the Programme possesses necessary knowledge and experience required for programme elaboration. He/she is personally involved in programme implementation;
- Programme students are provided with an adequate number of administrative and support staff of appropriate competence.

Descriptive summary and analysis of compliance with standard requirements

There are 22 professors, 2 associate professors and 1 assistant professor involved in the programme. They actively participated in the development of the programme. The academic personnel has good experience and qualifications to teach the assigned courses. However, since the teaching language of the programme is English, it is important to mention that some members of academic and invited staff had problems understanding English during the interviews. On some occasions the members of the Expert Panel needed to repeat (rephrased) questions several times or even translate to Georgian before receiving a reasonable answer.

The workload of the involved members of academic staff is adequate to the programme.

The programme coordinator has enough knowledge and experience required for programme elaboration. Programme students are provided adequate administrative support by the faculty staff.

Evidences/indicators

- Personnel documentation
- Self-evaluation report
- Interviews with administration and academic staff

Recommendations:

Define English language fluency requirements for lecturers and ensure that all involved lecturers meet those requirements.

Best Practices (if applicable):

In case of accredited programme, significant accomplishments and/or progress

Evaluation

□ Complies with requirements

X Substantially complies with requirements

 \Box Partially complies with requirements

□ Does not comply with requirements

4.2 Professional development of academic, scientific and invited staff

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

Descriptive summary and analysis of compliance with standard requirements

The university Quality Assurance Office collects feedback from students about academic and invited staff every semester; based on this, their teaching performance is evaluated. Every year, each member of academic staff submits a self-evaluation report on their scientific work.

The university funds academic staff to participate in international conferences and scientific events. There are several staff exchange programmes, which are actively used by the academic staff. As an example, last year the programme coordinator was in the UK on an Erasmus staff exchange program.

The university has a "professional development center", where academic staff receive training in career planning, modern teaching methodologies, communication and cognition, teaching results and their evaluation.

Evidences/indicators

- Self-evaluation report
- Interviews with administration, quality assurance and academic staff

The "professional development center" should create some teaching-oriented English language courses for lecturers.

Best Practices (if applicable):

In case of accredited programme, significant accomplishments and/or progress

Evaluation

- X Complies with requirements
- □ Substantially complies with requirements
- □ Partially complies with requirements
- □ Does not comply with requirements

4.3. Material Resources

Programme is provided by necessary infrastructure and technical equipment required for achieving programme learning outcomes.

Descriptive summary and analysis of compliance with standard requirements

The university has good infrastructure to run the programme. It provides new and fully equipped labs, where it is possible to teach not only this, but other programmes in engineering, physics, etc. During the tour of the institution facilities, the Expert Panel saw that two new labs have been prepared specifically for this programme with powerful computers, having a high processing power (the computers are already there, but the software installation process was not yet complete). The library has all the main literature specified in the syllabi. Students and academic staff have access to several scientific databases, like Elsevier.

Evidences/indicators

- Self-evaluation report
- Tour of the institution facilities library, classrooms, offices, etc.

Recommendations:

Suggestions for programme development:

Best Practices (if applicable):

In case of accredited programme, significant accomplishments and/or progress

Evaluation

X Complies with requirements

□ Substantially complies with requirements

□ Partially complies with requirements

□ Does not comply with requirements

4.4. Programme/faculty/school budget and programme financial sustainability

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

Descriptive summary and analysis of compliance with standard requirements

The programme budget is well presented. It includes a reasonable amount of expenses, but expected income is overestimated. In the budget, the number of expected students per year is 50, but there is no justification of this number. The Expert Panel understands from student interviews that there are currently around 10 students on the related English programmes. The programme under evaluation - according to the budget and its expenses - needs at least 30 students per year to be sustainable.

Evidences/indicators

- Programme budget
- Self-evaluation report
- Interviews with administration, academic staff and students

Recommendations:

Provide a reasoned justification of the number of expected students on the programme.

Suggestions for programme development:

Best Practices (if applicable):

In case of accredited programme, significant accomplishments and/or progress

Evaluation

 \Box Complies with requirements

X Substantially complies with requirements

□ Partially complies with requirements

 \Box Does not comply with requirements

Programme's Compliance with Standard

Standard	Complies with	Substantially	Partially	Does not Comply
	Requirements	complies with	Complies with	with Requirements
		requirements	Requirements	
Providing		Х		
teaching				
resources				

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 on a regular basis.

5.1 Internal quality

Programme staff collaborates with internal quality assurance service(s) available at the higher education institution when planning the process of programme quality assurance, creating assessment instruments, and analysing assessment results. Programme staff utilizes quality assurance results for programme improvement.

Descriptive summary and analysis of compliance with standard requirements

The university quality assurance office has many activities to get feedback from lecturers and students about the study programmes. Analysis of the feedback leads to study programme modifications. There were several cases where they even replaced the course lecturer following student requests.

Although the completion of the feedback form is not mandatory, around 80% of students submit it.

The faculty Quality Assurance Office is running a project "Ensuring European Study Quality and Development Perspectives", which aims to achieve study process in compliance with European standards.

Evidences/indicators

- Quality assurance documents
- Self-evaluation report
- Interviews with administration, quality assurance office, students and academic staff.

Best Practices (if applicable):

In case of accredited programme, significant accomplishments and/or progress

Evaluation

X Complies with requirements

□ Substantially complies with requirements

□ Partially complies with requirements

□ Does not comply with requirements

5.2 External quality

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

Descriptive summary and analysis of compliance with standard requirements

The university academic staff provides yearly reports on their academic and research activities, which is evaluated by the Georgian National Science Academy. The university has 2500 academic staff members, thus it is impossible for their annual reports to be evaluated by international experts. As an international recognition measure, the Quality Office named invitations of their academic staff members to European and other universities to deliver some courses.

The public universities have academic staff election every four years. Periodically, Georgian Technical University has international experts as members of their evaluation committees. As an example, they had international experts in 2017 for the Physics evaluation committee.

The presented programme was developed in compliance with ABET rules. Some members of the team visited San Diego State University to obtain feedback on this programme.

Evidences/indicators

- Quality assurance documents
- Self-evaluation report
- Interviews with administration, quality assurance office and academic staff

Best Practices (if applicable):

In case of accredited programme, significant accomplishments and/or progress

Evaluation

X Complies with requirements

□ Substantially complies with requirements

□ Partially complies with requirements

□ Does not comply with requirements

5.3. Programme monitoring and periodic review

Programme monitoring and periodic review is conducted with the involvement of academic, scientific, invited, administrative staff, students, graduates, employers and other stakeholders through systematically collecting and analysing information. Assessment results are utilized for programme improvement.

Descriptive summary and analysis of compliance with standard requirements

The programme under evaluation is new, thus there is no programme monitoring or review done yet, but if accepted, the standard procedures developed at the university will be applied. It is common practice that students evaluate the content of each course and study quality at the end of every semester. This includes evaluation of the adequacy and fairness of the course evaluation methods. The results are analyzed and used to improve study process and programme quality.

During the development of the presented programme, the team members obtained feedback from lecturers, students, employees, alumni and other parties. It was evaluated by the quality assurance office and the results were presented to the programme coordinator.

Evidences/indicators

- Quality assurance documents
- Self-evaluation report
- Interview with administration, quality assurance office and academic staff

Best Practices (if applicable):

In case of accredited programme, significant accomplishments and/or progress

Evaluation

X Complies with requirements

□ Substantially complies with requirements

□ Partially complies with requirements

□ Does not comply with requirements

Programme's Compliance with Standard

Standard	Complies with Requirements	Substantially complies with requirements	Partially Complies with Requirements	Does not Comply with Requirements
Teaching quality	X			
enhancement				
opportunities				

Enclosed Documentation (If Applicable)

HEI's Name:

Higher Education Programme Name:

Number of Pages of the Report:

Programme's Compliance with the Standard

1. Programme objectives are clearly	Х		
defined and achievable; they are			
consistent with the mission of the			
HEI and take into consideration			
labour market demands			
2. Teaching methodology and	Х		
organization, adequate evaluation			
of programme mastering			
3. Student achievements and	X		
individual work with them			
4. Providing teaching resources		Х	
5. Teaching quality enhancement	X		
opportunities			

Expert Panel Chair's

Name, last name, signature

Donald Sannella

Donald Sand

Expert Panel Members'

Name, last name, signature

Mikheil Rukhaia

ia J. Cml 3. prysdy

Name, last name, signature

Bakar Duadze