Accreditation Expert Group Report on Higher Education Programme

Paleontology-Paleoanthropology (Doctoral Program)
Ivane Javakhishvili Tbilisi State University

Date(s) of Evaluation: September 9-10, 2019

Report Submission Date: October 9, 2019

Tbilisi
2019

HEI's Information Profile

Name of Institution Indicating its Organizational Legal Form	Ivane Javakhishvili Tbilisi State University Legal Entity of Public Law
HEI's Identification Code	204864548
Type of Institution	University

Higher Education Programme Information Profile

Name of the Programme	Paleontology- Paleoanthropology
Level of Education	Doctorate
Qualification Granted Indicating Qualification Code	Doctor of Paleoanthropology 0588
Language of Instruction	Georgian
Number of Credits	40
Programme Status (Authorized/ Accredited/New)	New

Expert Panel Members

Chair (Name, Surname, University/organization/Country)	Prof. Lorenzo Rook (Florence University, Italy)
Member (Name, Surname, University/organization/Country)	Prof. Ramaz Shengelia
Member (Name, Surname, University/organization/Country)	Ms. Lana Bokuchava (Student expert)

Accreditation Report Executive Summary

▪ **General information on the education programme**

The establishment of a Doctoral Programme in Paleontology and Paleoanthropology in Georgia comes at the right time and offers the possibility of enhancing the internationally celebrated country's cultural, scientific and naturalistic resources (Dmanisi being the most important paleoantropological site discovered in the latest 20 years, and since then continuously yielding scientific novelties and defining new path of research and paleoanthropological thinking).

The objectives of the program have been developed in accordance with the mission and strategic plan of TSU, tying them to local opportunities (Dmanisi and other paleontological and paleoanthropological sites) resources (the GNM infrastructures) and within and international framework of collaborations.

The objectives of PhD Program in Paleontology and Paleoanthropology are:

i) to prepare a highly qualified specialist, who meets international standards in the field of paleontology and paleoanthropology;

ii) to raise awareness and develop/enhance paleontology and paleoanthropology school in Georgia.

▪ **Brief overview of the accreditation site-visit**

The accreditation site-visit of the Expert Panel Members (together with NCEQE Representative and Specialist at Academic Programme Accreditation Division) took place on September 10, 2019. At the Tbilisi State University (TSU) the Expert Panel met:

i)   The TSU Administration representatives;
ii) The Self-Evaluation Team;
iii) The head of quality assurance service;
iv) The head of the programme;
v)   Faculty members;
vi) Invited lecturers;

The Expert Panel members, after a tour visiting the TSU facilities (library, classrooms, offices, etc.) moved to the Georgian National Museum, where visited the GNM facilities (library, laboratories, offices, working spaces etc.) and met:

vii) Employers and internship supervisors;
viii) Students.

The Expert Panel members then prepared the exit presentation and presented key findings to Head of the programme, and to Dean of the Faculty of Exact and Natural Sciences.

▪ **Summary of education programme's compliance with the standards**

In summary, the Doctoral Programme in Paleontology and Paleoanthropology complies with the standard requirements in 17 of 17 components.

▪ **Summary of Recommendations**

The proposal complies with requirements in 17 of 17 components and no mandatory recommendations are suggested.

▪ **Summary of Suggestions**

For the following points, the Expert Panel members suggest to:

i)   *Point 1.1 Programme Objectives* - Expansion of the opportunities of acquiring practical skills and theoretical knowledge. In particular, introduction of the course of physical (biological) anthropology (possibly instead of the course of anatomy). Teaching of molecular anthropology and advanced chemical methods (stable isotopes etc.) to certain extent would be desirable as well.

ii) *Point 2.1 Programme Admission Preconditions* - Doctoral programme admission commission composition, and its operating rules, should be more detailed.

iii) *Point 2.2. Educational Programme Structure and Content* - It is suggested that if a PhD student take courses from the lower level degree programs in order to strength some topic specific to his/her research program the ECTS of these courses (eventually to a maximum to be established) will be awarded and computed in the amount of the research component of the total ECTS to be acquired.

iv) *Point 2.3 Course* - Update and ameliorate Syllabi in respect to Basic and Additional literature (either in number of suggested textbooks and, especially, in term of modern scientific references).

- **Summary of best practices (If Applicable)**

NOT APPLICABLE

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

NOT 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
o Goal of the program is to train professionals in paleontology and paleoanthropology with high qualification corresponding to international standards,
o Programme objectives:
  ▪ are clear, realistic and achievable (existence of paleontology and paleoanthropology school with quite long history and good reputation in Georgia and discoveries of international significance made in recent years have caused the logical desire to develop the doctoral program in the mentioned sphere);
  ▪ define the set of knowledge, skills and competences the programme aims to develop in graduate students, albeit expansion of the opportunities of acquiring practical skills and theoretical knowledge in fields as physical anthropology (possibly instead of the course of anatomy), molecular anthropology and advanced chemical methods (stable isotopes etc.), would strength the academic component of the programme;
  ▪ to certain extent would be desirable as well;
  ▪ illustrate the contribution to the development of the field and the society (strengthening and popularization paleontology and paleoanthropology school in Georgia);
  ▪ are consistent with the mission, objectives and strategy of the TSU;
  ▪ take into consideration local labour market demands, trends of international field of paleontology and paleoanthropology, as well as societal development needs;
  ▪ are public and accessible;
  ▪ are shared by the people involved in the programme.

Evidences/indicators o Mission of Ivane Javakhishvili Tbilisi State University; o Existence of the bachelor's master's and doctoral programs in paleontology-paleoanthropology at TSU; o Scientific and practical experience of the National Museum of Georgia, its collections and advanced research methodology; o Analysis of employers' survey; o Results of the survey of students and academic personnel.
Recommendations: o The proposal comply with requirements of the standards on this point and no mandatory recommendations are suggested.
Suggestions for programme development: o Expansion of the opportunities of acquiring practical skills and theoretical knowledge. In particular, introduction of the course of physical (biological) anthropology (possibly instead of the course of anatomy). Teaching of molecular anthropology and advanced chemical methods (stable isotopes etc.) to certain extent would be desirable as well.
Best Practices (if applicable): o NON APPLICABLE

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

Evaluation	6
X Complies with requirements ☐ Substantially complies with requirements ☐ Partially complies with requirements ☐ 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

As a result of survey of the students, academic personnel and employers the following was established:
- o Learning outcomes of paleontology-paleoanthropology are in compliance with the program goals and provides formation of the key knowledge and practical skills specified in the program goal;
- o Learning outcomes of bachelor's program in paleontology-paleoanthropology correspond to the qualification of doctor of paleoanthropology at the highest stage of higher education, they are realistic, measurable and achievable;
- o Program manager provides coordination of the involvement of academic personnel of the program in the program development process. In particular, involvement of academic personnel is provided base on the teamwork principle, ensuring that the program relies not on its manager's vision only but rather it includes views of the experienced academic personnel as well;
- o Involvement of the employers/potential employers would ensure flexibility of the program and its adjustment to varying market demand.

Evidences/indicators
- o Bachelor's program in natural, exact sciences and archeology;
- o Mission of the University of Georgia;
- o University website (posted program);
- o Results of interviewing of the students and academic personnel.

Recommendations:
- o The proposal comply with requirements of the standards on this point and no mandatory recommendations are suggested.

Suggestions for programme development:
- o NO SPECIFIC FURTHER SUGGESTIONS

Best Practices (if applicable):
- o NON APPLICABLE

In case of accredited programme, significant accomplishments and/or progress
- o NON APPLICABLE

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
Educational 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 o The preconditions for the admission to the program are: i) Master's academic degree or equivalent in geology, biology, geography and other natural sciences, mathematics and statistics, as well as in archaeology and medicine; ii) Successful interview with the Doctoral program commission; iii) English language proficiency at B2 level; o Programme admission preconditions (logically linked to program content) are designed in order to considere and ensure admission of the students with relevant knowledge, skills and competences for the wide specrtum of research field involved in the programme; o Programme admission preconditions and procedures are consistent with existing legislation, and are fair, public and accessible.
Evidences/indicators o The educational programme is designed taking into consideration the program admission preconditions and is designed to prepare a highly qualified specialist, complying international standards, in paleontology-paleoantropology, and to raise awareness and develop/enhance paleontology and paleoanthropology school in Georgia; o Programme admission preconditions (criteria and procedures) are designed to allow a broad spectrum of master specialization to be admitted in accordance to the complex and differentiate aspects covered by Paleoanthropology (and Paleontology); o Information publicity and methods of spreading information about programme admission preconditions, is adequate, as it is the University Website; o Doctoral programme admission commission composition (and operating rules), has not been detailed in full; o Interviews on this point have been totally satisfying.
Recommendations: o The proposal comply with requirements of the standards on this point and no mandatory recommendations are suggested.
Suggestions for programme development: o Doctoral programme admission commission composition, and its operating rules, should be more detailed.
Best Practices (if applicable): o NON APPLICABLE
In case of accredited programme, significant accomplishments and/or progress o NON APPLICABLE
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 program is designed in accordance with the Tbilisi State University resolution N245/2018 "on approving minimum standard for doctorate" and "the provision of doctorate of the faculty of natural and exact sciences";   - The program content, volume and complexity correspond with the requirements of a doctorate level (in this respect the expert panel noticed the fact that "a PhD student can take courses from the lower level degree programs without awarding credits as needed"; - see suggestions);   - The program content takes programme admission preconditions into consideration;   - The program is structured in accordance with Georgian Legislation and European Credits Transfer System applies ECTS credits   - The programme content and structure is consistent with the qualification to the granted and ensure the achievement of programme learning outcomes;   - The program content takes new research findings and modern scientific achievements into consideration (Dmanisi paleoanthropological site, its findings, and the outstanding publication record in the field of Paleontology and Paleoanthropology);   - TSU Bachelor degree programmes give students opportunity to choose elective components of the educational programme;   - Main stakeholders (academic and invited staff, support personnel, academic personnel of faculty, representatives of faculty and university quality assurance services, employers, etc.) have been involved in designing the programme;   - Higher Education Institution (TSU) ensures publicity and accessibility of programme related information.

Evidences/indicators
- TSU's methodology for planning, designing and developing educational programmes is adequate;   - Educational programme volume and complexity correspond with the requirements of a doctorate level;   - Syllabi;   - Curriculum map is adequate;   - Website at TSU and NMG are both informative;   - A contract signed between TSU and NMG certify the involvement of stakeholders in programme design process;   - Survey and interview result satisfactorily evidenced the fulfillment of these indicators.

Recommendations:
The proposal comply with requirements of the standards on this point and no mandatory recommendations are suggested.

Suggestions for programme development:
It is suggested that if a PhD student take courses from the lower level degree programs in order to strength some topic specific to his/her research program the ECTS of these courses (eventually to a maximum to be established) will be awarded and computed in the amount of the research component of the total ECTS to be acquired.

Best Practices (if applicable):
NON APPLICABLE

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

Evaluation
X Complies with requirements ☐ Substantially complies with requirements ☐ Partially complies with requirements ☐ 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
- o Syllabi clearly stipulates the objective, precondition, outcomes and teaching methods.
- o Syllabi of subjects not always apply contemporary literature.
- o Courses include intensive laboratory works, as well practical component, to be conducted in the field. The latter is important and ensures development of theoretical, as well as practical skills, so that a graduate is able to carry on independent scientific activity.
- o The course content (theoretical and laboratory /practical part) corresponds with TSU requirements and ensure achievement of learning outcomes.
- o Education component corresponds with the program learning outcomes
- o Content of an individual education course, and numbers of allocated ECTU, correspond with the learning outcomes of the given education course.
- o Contact and individual hours are allocated to each education course, which are adequate to the given materials and for attaining learning outcomes.
- o Contact hours-independent hours ratio is defined in accordance with the course specifics, content, learning materials and education cycle.
- o Achievement of education course' learning outcomes are evaluated according to the Criteria, defined in syllabi.

Evidences/indicators
- o The educational program of the curriculum is well designed.
- o Although Syllabi clearly stipulates the objective, precondition, outcomes and teaching methods, not always are updated in reference to contemporary literature (in particular Syllabus in Archaeology of the Stone Age).

Recommendations:
- o The proposal comply with requirements of the standards on this point and no mandatory recommendations are suggested.

Suggestions for programme development:
- o Update and ameliorate Syllabi in respect to Basic and Additional literature (either in number of suggested textbooks and, especially, in term of modern scientific references).

Best Practices (if applicable):
- o NON APPLICABLE

In case of accredited programme, significant accomplishments and/or progress
- o NON APPLICABLE

Evaluation

    X Complies with requirements
☐ 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
- o Paleontology and Paleoanthropology are interdisciplinary science, requiring special skills, mastering of which, also, require special resources. The program provides with the possibility to acquire theoretical knowledge, as well as mastering important practical skills.

o PhD students will have a chance to participate in excavations of Dmanisi paleoanthropological monuments directly.
o They will also have an access to paleoanthropological and paleo-biological collections, preserved in Georgian National Museum and participate preparation of obtained materials in the laboratory of museum restoration/conservation.
o Skills of working with natural and cultural heritage monuments have significant importance out of practical skills.
o 2 PhD student's seminars and a professor's assistantship are mandatory for the program. Which facilitates mastering teaching skills. Also, two scientific projects are mandatory, ensuring provision of broad field-specific knowledge to PhD students.

Evidences/indicators
o The involvement of the students in the Dmanisi research project at GNM, in accordance with the programme learning outcomes, ensures the development of students' practical, scientific/research, and transferable skills.
o Interview and survey at the GNM facilities were completely positive on this respect

Recommendations:
o The proposal comply with requirements of the standards on this point and no mandatory recommendations are suggested.

Suggestions for programme development:
o NO SPECIFIC FURTHER SUGGESTIONS

Best Practices (if applicable):
o NON APPLICABLE

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

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
o The teaching and learning methods of each academic course are corresponding to the third level of academic higher education with highly interactive involvement of the students in the learning process;
o The aforementioned teaching and learning methods are flexible towards the individual needs of the doctoral students.
o The teaching and learning methods are in accordance to the learning outcomes, such as the ability of critical analysis of already existing concepts and approaches of the field via the knowledge, based on the most updated achievements in the according field, ability of finding research material both in the field and in collections and apply quantitative and qualitative research methods while processing,

ability create a scientific product of a highest quality by writing and publishing scientific work, as well as the ability of independent decision-making on planning and conducting scientific projects.
Evidences/indicators   o Self evaluation report   o Interviews with Academic and Invited staff   o Doctoral Program   o o Syllabi
Recommendations: o The proposal comply with requirements of the standards on this point and no mandatory recommendations are suggested.
Suggestions for programme development: o NO SPECIFIC FURTHER SUGGESTIONS
Best Practices (if applicable):   o NON APPLICABLE
In case of accredited programme, significant accomplishments and/or progress   o NON APPLICABLE

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
 o Students of the Doctoral Program of Tbilisi State University are evaluated through all the years of their studies, in accordance with the teaching and learning methods. The evaluation is fairly and transparently conducted to all the students. The Doctoral program, as well as all the syllabi, which is in free access to every interested party, contain the detailed explanation of the student's assessment.
 o According to the Program, the evaluation is performed according to the following principle:
     The student's knowledge is evaluated by a 100-point system, with exact grading of every point:
     (A) Excellent – 91 - 100 points of evaluation;
     (B) Very good – 81-90 points of maximum evaluation;
     (C) Good – 71-80 points of maximum evaluation;
     (D) Satisfactory – 61 - 70 points of maximum evaluation;
     (E) Sufficient – 51-60 points of maximum evaluation.
     (F) two types of negative evaluations:
     (FX) Did not pass – 41-50 points of maximum evaluation, which means that a student requires some more work for passing and is given the right to sit an additional examination by means of an independent work;
     (F) Failed – 40 and less points of maximum evaluation, which means that the work carried out by the student is not sufficient and he/she has to retake the course. In case of having FX score in the component of education program, higher educational institution appoints an additional examinations not later than five days after announcement of final examination results.
 o The document of the Doctoral program contains the detailed explanation on Dissertation work assessment in accordance to general/university standard.
 o The syllabi of each course/module contains the detailed information about the midterm and final assessments in accordance to the learning outcomes and teaching methods.
 o The students are available for having the feedback by the consultations with the lecturers and supervisor(s) on different modules.
 o The electronic database of the students allows the lecturer to analyze the progress of the students in their particular course/module.

Evidences/indicators
o Self evaluation report o Interviews with Academic and Invited staff o Doctoral Program o o Syllabi
Recommendations: o The proposal comply with requirements of the standards on this point and no mandatory recommendations are suggested.
Suggestions for programme development: o NO SPECIFIC FURTHER SUGGESTIONS
Best Practices (if applicable): o NON APPLICABLE
In case of accredited programme, significant accomplishments and/or progress o NON APPLICABLE

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 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 o The Tbilisi State University has developed precise regulations for administration of the status and progress of PhD students, as well as for improvement of the learning process and their achievements. o The students of PhD program timely receive all necessary and appropriate information, as well as consultations on planning of learning process. o To be emphasized, students are very well aware on the competences they are expected to gain. o There is a strong evidence of possible career development, both in academic and scientific environments.

- The students of PhD program are very well informed about all the necessary facilities, as well as literature sources (local and International) they have access to, for successful accomplishing their doctoral studies.   - The students are very well informed, as well as have a great opportunity for participating in local and international conferences, as well as exchange programs.   - The students are informed about any funding opportunities and supported in research proposals.   - The PhD students have the opportunity to collaborate with potential employers (e.g. National museum) and perform their research on their basis.

Evidences/indicators
- Self evaluation report   - Interviews with students   - TSU web site   - o National Museum of Georgia

Recommendations:
The proposal comply with requirements of the standards on this point and no mandatory recommendations are suggested.

Suggestions for programme development:
NO SPECIFIC FURTHER SUGGESTIONS

Best Practices (if applicable):
NON APPLICABLE

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

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

Master's and Doctoral students have qualified thesis supervisors.

Descriptive summary and analysis of compliance with standard requirements
- Tbilisi State University has established well defined document on the minimal standards of the doctoral degree (with all possible appendixes), which is precise for regulation of research project preparation process for students eager to earn their Doctoral degrees. The document contains detailed information on Aims and goals, terminology peculiarities, regulatory mechanisms of the learning process, supervisor (as well as the selection of the supervisor), academic and research components, dissertation (with appendixes, containing its precise structure and evaluation), as well as the defense itself.   - The students of PhD program accomplish their program minimum of three years (180 credits) under the scientific supervision of qualified supervisor. On the frequent and constant consultation basis, the PhD student and supervisor are setting the academic and research plan. The supervisor is the one monitoring the progress of the student in both aforementioned parts.   - The dissertation topic approval, as well as scientific supervisor(s) selection is the prerogative of the Faculty Council via the reference of the Head of Commission or Head of the Program of the relevant dissertation commission. Scientific supervisor(s) of doctorate student, as well as the title of dissertation are submitted to the Faculty Council in the period of six (6) months after the PhD student enrollment.   - According to the aforementioned document of the minimal standards of the doctoral degree of the Tbilisi State University, the supervisor should have Doctoral Degree, research experience in the field of science / specialty / field of PhD dissertation and relevant publications in the last 10 years.

Evidences/indicators
- Self evaluation report   - Interviews with students   - o Minimal Standard on Doctoral Degree (with all the appendixes)

Recommendations: o   The proposal comply with requirements of the standards on this point and no mandatory recommendations are suggested.
Suggestions for programme development: o   NO SPECIFIC FURTHER SUGGESTIONS
Best Practices (if applicable):   o   NON APPLICABLE
In case of accredited programme, significant accomplishments and/or progress   o   NON APPLICABLE

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
Student achievements and individual work with them	✓			

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
    o   The program is implemented by academic personnel (professors, associate professors, assistant-professors) and invited teachers, having professional, as well as teaching experience in the field.
    o   Qualification of the persons involved in the program complies with the qualification requirements set out in the legislation and TSU regulations; in particular, TSU has set forth certain qualification requirements for the academic staff. The resolution N118/2014 of the Academic Board of TSU of

2014 "on the unified rule of hiring academic personnel of LEPL- Ivane Javakhishvili Tbilisi State University and conducting a competition";

- The head of the program is the general director of the National Museum of Georgia and scientific supervisor of Dmanisi paleoanthropological monument. He lectures at Geology department of the University as well. The program head has been directly involved in every stage of the program design. He provides consultations for students.
- Qualifications of academic, invited and support personnel, involved in the program, is verified by scientific works, being published during the last five years, also education diplomas, work experience.
- Students' work in laboratory/excavations and undergoing educational course is monitored by Ana Margvelashvili - senior scientific staff of the National Museum of Georgia, the organizer of paleoanthropological field school, having broad experience of working at similar courses in Dmanisi museum-preserve, as well as Zurich State University.
- Qualification requirements for supporting staff are determined based on each specific position, on the basis of the specificity of the activity of the structural unit. The rule of personnel assessment is defining by the academic council decision of LEPL Tbilisi State University. Decree N 81/2018 of February 26, 2018 on the approval of the rule of evaluation of LEPL - Ivane Javakhishvili Tbilisi State University personnel.
- Workload of academic, invites and support personnel is approved before starting an academic semester dynamically.
- The number of academic and invited personnel is adequate.
- The balance between the academic and invited personnel ensures sustainability of the program,

Evidences/indicators
- Balance between academic and invited staff: adequate, ensuring programme sustainability, in addition invited staff (together with academic/scientific) is fully involved apart from teaching process (student advising, development of the programme, participation in events planned in the scope of the programme).
- Support staff: Programme has an adequate number of administrative and support staff of appropriate competence adequate and consistent with their function.
- Qualification requirements: The Head of the Programme, as well as other personnel involved, possesses necessary knowledge and experience required for programme elaboration and management.
- Personal files of the staff: CVs and diplomas of the personnel are highly qualified (in some case outstanding).
- Submitted Job applications: NOT Applicable.
- Interview results: completely positive on this respect.

Recommendations:
- The proposal comply with requirements of the standards on this point and no mandatory recommendations are suggested.

Suggestions for programme development:
- NO SPECIFIC FURTHER SUGGESTIONS

Best Practices (if applicable):
- NON APPLICABLE

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

Evaluation

X Complies with requirements

☐ Substantially complies with requirements

☐ 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
o As a rule, at the end of each calendar year, every TSU department member presents a report on scientific work/self-evaluation in compliance with the internal faculty regulations and the request of Academy of Sciences of Georgia, where scientific publications, projects, participation in conferences and other scientific activities are reported.   o Besides, before starting the spring semester of each year a TSU faculty scientific conference takes place, where scientific activities of staff are communicated to public. Participation in the conference is free and invited teachers actively participate in it.   o The TSU faculty budgets funds for participation in scientific forums every year and the faculty staff actively uses them.   o TSU and GNM Personnel actively participates in international mobility programs that are funded by the different international organizations (DAAD, Fulbright, etc.)
Evidences/indicators
o TSU and GNM organize events for professional development of academic, scientific and invited staff (trainings, scientific missions, qualification courses, conferences, exchange local and/or international projects,);   o Both TSU and GNM have supporting mechanisms for fostering scientific and research work;   o Programme staff scientific/research output are relevant (and in some cases outstanding);   o TSU and GNM staff are involved in international projects, conferences, research, and events;   o TSU and GNM have international cooperation documented by international research, published papers, international mobility, exchange and joint programmes, bilateral agreements, memoranda, etc.).   o Interview and survey at the GNM facilities were completely positive on this respect
Recommendations:
o The proposal comply with requirements of the standards on this point and no mandatory recommendations are suggested.
Suggestions for programme development:
o NO SPECIFIC FURTHER SUGGESTIONS
Best Practices (if applicable):
o NON APPLICABLE
In case of accredited programme, significant accomplishments and/or progress
o NON APPLICABLE
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
o The program possesses substantial material-technical base, which is located in the faculty of exact and natural sciences of the University, National Museum of Georgia, Dmanisi museum-reserve. The Main Material-technical base available is made up by: ▪ TSU Material-technical base of the Faculty of Exact and Natural Sciences;   ▪ TSU library and national scientific library, computer bases, resource-centers, etc.;

- TSU Education-research laboratories of mineralogy, paleontology and petrochemistry;
- GNM Collections of the National Museum of Georgia;
- GNM Dmanisi museum-reserve, filed-base and laboratory;
- GNM Library;
- GNM Laboratory of paleobiology and Stone Age archeology conservation and restoration laboratory;
- GNM 3D scanner (National Museum);
- GNM Binoculars (National Museum);
- GNM Morphometric tools (National Museum).

Evidences/indicators
- During the survey, accreditation experts had the opportunity to verify the adequacy of infrastructure (laboratories), technical equipment, library resources, material and technical resources, both at TSU and GNM;
- The technical equipment available is extensive and allow an adequate resources/number of students ratio;
- TSU Library has an extensive number of internet-connected workstations with access to international electronic library database;
- The core literature indicated in the programme is available at the library;
- Interview and survey at TSU and GNM facilities were completely positive on this respect.

Recommendations:
- The proposal comply with requirements of the standards on this point and no mandatory recommendations are suggested.

Suggestions for programme development:
- NO SPECIFIC FURTHER SUGGESTIONS

Best Practices (if applicable):
- NON APPLICABLE

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

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 financial support of the program is performed within the frames of the expenditure part of the budget annually allocated from TSU to the Faculty and also by the expenses considered in the expenditure part of TSU central budget, which serves the provision of functioning of the central apparatus of the university, the coverage of the utility expenses, the objectives of the infrastructure improvement and the guarantee of development of the material-technical base.
- Academic, administrative personnel and students of the Faculty are involved in the review - approval process of the expenditure part of the Faculty budget.
- The expenditure part of the budget considers the following:
  - Remuneration of the academic and administrative personnel, as considered by the full-time schedule, serving the program, and remuneration of the contractors;
  - Financial support for the enrichment and renewal of the book fund;
  - Reimbursement of work-related trips of administrative and academic personnel;
  - Mandatory financial support for the organization of scientific conferences;

	▪ Financing of the participation of students in educational, scientific and other types of events; o The utilization of the financial resources for the mentioned purposes is performed on the basis of a relevant administrative-legal act of the TSU Head of Administration, depending on the necessity, on the basis of the decision of the Faculty Administration and/or Faculty Board. If necessary, the expenditure part determined annually for the Faculty is modified. The dynamics of the amounts allocated for the remuneration of the academic, administrative and invited personnel envisaged by the expenditure part of the Faculty budget is increasing, which ensures the involvement of highly qualified staff in the implementation of the program. o The budget of the presented program is considered for 3 PhD students with active status. o Given that the implementation of practical/laboratory components crucial for the development of this Doctoral Programme is ensured by the Georgian National Museum(GNM), the TSU budget only considers remuneration of academic/invited personnel, support personnel, office and communal expenses, as well as others expenses (taxes, insurance, pension fees).
Evidences/indicators o Funding sources are adequately provided from either TSU (from the University budget, thoughout specific assignment to the Faculty/Programme budget) and by GNM thanks to the budget assigned to laboratory/infrastructure implementation, and to the international finanging obtained for the functioning of the fiels activities at the paleoanthropological site of Dmanisi. o Interview and survey at TSU and GNM facilities were completely positive on this respect.	
Recommendations: o The proposal comply with requirements of the standards on this point and no mandatory recommendations are suggested.	
Suggestions for programme development: o NO SPECIFIC FURTHER SUGGESTIONS	
Best Practices (if applicable): o NON APPLICABLE	
In case of accredited programme, significant accomplishments and/or progress o NON APPLICABLE	

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
Providing 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
- o At TSU coordination of the issues related to internal quality assurance is provided by TSU quality assurance service, with the internal quality assurance system. The system implies:
  - · Assessment of the education program based on the specially developed and approved criteria/indicators, before their approval by the authorized bodies;
  - · Syllabuses' evaluation based on the relevant criteria/indicators;
  - · Evaluation of the syllabuses of the education courses based on the specially developed and approved criteria/indicators before their approval by the authorized bodies;
  - · Providing involvement of the stakeholders (doctoral students, academic, scientific, invited, administrative, auxiliary personnel, teachers, graduates, potential employers, professional and nongovernmental organizations, foreign specialists) in development, implementation evaluation and development/modernization process;
  - · Evaluation of implementation of the education programs according to specially developed procedures and indicators etc.
- o Program personnel collaborates with the University quality assurance service in program quality assessment planning and implementation process and relies on the results to improve the program. Program assessment is provided in the end of each year, in a form of the reports of doctoral students, with analysis of the course of program by the academic personnel. Program supervision is provided on everyday basis, by different subdivisions of the University.
- o University provides analysis of teaching and researches of the doctoral students and on this basis evaluates degree of complexity of the program. In addition, persons involved in the program regularly communicate with the employers. Information collected by them allows them adjustment of the individual program courses with the demand at labor market.

Evidences/indicators
- o TSU quality assurance service charter;
- o Order of 7 March 2018 No: 04/03 by the head of TSU quality assurance service "On Approval of Recommended Form for Syllabuses' Evaluation of LEPL Ivane Javakhishvili Tbilisi State University";
- o Order of 7 March 2018 No: 02/03 by the head of TSU quality assurance service "On Approval of Recommended Form for Higher Education Programs' Evaluation of LEPL Ivane Javakhishvili Tbilisi State University";
- o Resolution of 19 February 2018 No: 67/2018 of TSU Academic Board "On Approval of LEPL Ivane Javakhishvili Tbilisi State University Education Programs' Implementation Evaluation Indicators and Evaluation Procedures;
- o Order of 26 February 2019 No: 02/03 by the head of TSU quality assurance service "On Approval of Questionnaires for Survey of LEPL Ivane Javakhishvili Tbilisi State University Students, Personnel, Graduates and Employers".

Recommendations:
- o The proposal comply with requirements of the standards on this point and no mandatory recommendations are suggested.

Suggestions for programme development:
- o NO SPECIFIC FURTHER SUGGESTIONS

Best Practices (if applicable):
- o NON APPLICABLE

In case of accredited programme, significant accomplishments and/or progress
- o NON APPLICABLE

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
   o   External program assessment shall be provided in accordance with the effective regulations of TSU.
   o   University employs the quality assurance system that is publicly available. The system includes "plan-implement-inspect-improve" cycle.
   o   TSU has approved strategic development plan, as well as action plan. Strategic development plan sets the key directions and strategic goals. For the purpose of quality assurance regular inspection and evaluation of academic personnel compliance, as well as scientific publications' quality is provided.

Evidences/indicators
   o   External quality assurance results;
   o   Changes made based on external quality assurance results;
   o   Interview results.

Recommendations: o   The proposal comply with requirements of the standards on this point and no mandatory recommendations are suggested.
Suggestions for programme development: o   NO SPECIFIC FURTHER SUGGESTIONS
Best Practices (if applicable):   o   NON APPLICABLE
In case of accredited programme, significant accomplishments and/or progress   o   NON APPLICABLE

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   o   Program is not operating yet, therefore its implementation monitoring will be provided in the future

Evidences/indicators
   o   Order of 7 March 2018 No: 04/03 by the head of TSU quality assurance service "On Approval of Recommended Form for Syllabuses' Evaluation of LEPL Ivane Javakhishvili Tbilisi State University";
   o   Order of 7 March 2018 No: 02/03 by the head of TSU quality assurance service "On Approval of Recommended Form for Higher Education Programs' Evaluation of LEPL Ivane Javakhishvili Tbilisi State University";
   o   Resolution of 19 February 2018 No: 67/2018 of TSU Academic Board "On Approval of LEPL Ivane Javakhishvili Tbilisi State University Education Programs' Implementation Evaluation Indicators and Evaluation Procedures;
   o   Submitted questionnaires, results of survey analysis;
   o   Statute on permanent improvement of quality;
   o   Interviews with the employers;
   o   Interviews with the graduates.

Recommendations: o The proposal comply with requirements of the standards on this point and no mandatory recommendations are suggested.	
Suggestions for programme development: o NO SPECIFIC FURTHER SUGGESTIONS	
Best Practices (if applicable): o NON APPLICABLE	
In case of accredited programme, significant accomplishments and/or progress o NON APPLICABLE	

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 enhancement opportunities	✓			

Enclosed Documentation (If Applicable): None

HEI's Name:

Ivane Javakhishvili Tbilisi State University (TSU)

Higher Education Programme Name:

Paleontology- Paleoanthropology Doctoral Program

Number of Pages of the Report: 23

Programme's Compliance with the Standard

Standard	Complies with Requirements	Substantially complies with requirements	Partially Complies with Requirements	Does not Comply with Requirements
1. Programme objectives are clearly defined and achievable; they are consistent with the mission of the HEI and take into consideration labour market demands	✓			
2. Teaching methodology and organization, adequate evaluation of programme mastering	✓			
3. Student achievements and individual work with them	✓			
4. Providing teaching resources	✓			
5. Teaching quality enhancement opportunities	✓			

Expert Panel Chair's

Prof.Lorenzo Rook (Chair of the Panel)

Expert Panel Members'

Prof. Ramaz Shengelia

Ms. Lana   Bokuchava (Student expert)