განათლების ხარისხის განვითარების ეროვნული ცენტრი
NATIONAL CENTER FOR EDUCATIONAL QUALITY ENHANCEMENT

Accreditation Expert Group Report on Higher Education Programme

Doctoral Educational Programme in Engineering
NPL – Agricultural University of Georgia (AUG)

Date of Evaluation: 18th September 2018

Report Submission Date: 21 November 2018

Tbilisi
2018

HEI's Information Profile

Name of Institution Indicating its Organizational Legal Form	Agricultural University of Georgia NLE
HEI's Identification Code	211325653
Type of Institution	University

Higher Education Programme Information Profile

Name of the Programme	Engineering
Level of Education	Doctoral
Qualification Granted Indicating Qualification Code	PhD in Engineering 04
Language of Instruction	Georgian
Number of Credits	180
Programme Status (Authorized/ Accredited/New)	Accredited

Expert Panel Members

Chair (Name, Surname, University/organization/Country)	Prof. Philippe Bouillard, Université Libre de Bruxelles, Belgium
Member (Name, Surname, University/organization/Country)	Prof. Manana Moistrapishvili, Georgian Technical University, Georgia
Member (Name, Surname, University/organization/Country)	Mr. Lekso Toriashvili (Student Expert), Ilia State University, Georgia

Accreditation Report Executive Summary

- General information on the educational programme

The PhD programme in Engineering delivered by the Agricultural University of Georgia is structured according to the Georgian law and European Credit Transfer and Accumulation System (ECTS). The programme consists of 180 credits: 45 credits are allocated for the doctoral training component and 135 credits are allocated for the research component. The programme offers 4 different directions: 'agro-engineering', 'tool making, automation and management systems', 'construction', and 'mechanics engineering and technology'. The objectives of the programme are to prepare qualified and competitive specialists in the above mentioned fields for local and international labour markets able to create new knowledge and support the implementation. The programme aims, learning outcomes, structure and content are relevant.

Disclaimer: it is, however, very important to notice that due to the calendar (first accreditation in 2013 and start of the programme in 2014), the PhD programme does not have any graduate yet. Since any accreditation process is evidence-based, the expert panel would like to draw the attention that their conclusions need to be further validated with the graduates' experience and feedback.

- Brief overview of the accreditation site-visit

The expert panel has had the opportunity to make a site-visit on Tuesday 18th September 2018 and to conduct interviews with different panels:

- the University Administration and the Self-Evaluation Team
- the heads of the programme and directions
- the academic staff involved in the doctoral training
- the PhD supervisors
- the students (2)
- the employers

The site visit also included a review of the facilities and lab equipment.

- Summary of the educational programme compliance with the standards

The PhD programme is fully compliant with the standards regarding the programme objectives, the student achievements and the resources and teaching organisation. It is partially compliant regarding the teaching quality enhancement.

- Summary of the recommendations

  - Unify the learning outcomes for the four scientific directions at programme level.
  - Better disseminate and systematise the policy for planning, designing and developing educational programmes and accordingly conduct the preparation/review of the programmes.
  - The University needs to systematically integrate external assessment in their quality procedures including addressing the possible recommendations and suggestions.
  - The programme monitoring and the periodic review need to be systematically conducted formally involving all the stakeholders.

- Summary of the suggestions

- The programme description is very broad and would gain clarity if detailed research topics and expertise would be made publicly available.
- Introduce courses of English and/or in English in the doctoral training.
- Reconsider the sequence of the Doctoral seminars and complete the third one by the fourth semester.
- The programme learning outcomes could better reflect all the course learning outcomes.
- Modern learning and teaching methods should be better addressed by the course on "teaching in higher educational system"
- Develop an institutional academic misconduct policy (including plagiarism prevention).
- Further develop international cooperation to offer access to complementary expertise or equipment.
- Expand the expertise in engineering by planning the recruitment of qualified doctors in engineering.
- Make a plan to train young academic staff (assistant and associate professors) to become the next generation of PhD supervisors.
- Increase the number of invited lectures given by international scholars or industrial partners.
- Develop and implement a systematic annual staff appraisal.
- Develop a HR policy for personal development allowing each Faculty member to be continuously trained to the highest standards with international exposure.
- Expand the international partnership to cover all the scientific fields offered by the PhD programme.
- Develop the quality culture within the University based on robust QA policies and procedures involving all the stakeholders.
- Formally consult the external examiners on the programme quality and possible improvements.

- Summary of the best practices (if applicable)

  - The course on "scientific project management".
  - AUG makes a workshop will highly qualified technical assistance available to the PhD students.
  - International cooperation to allow the PhD students to have access to the necessary equipment.

- In case of accredited programme, summary of the significant accomplishments and/or progress (if applicable)

  - The programme objectives have been clarified and are aligned with the stakeholders' expectations.
  - The programme learning outcomes have been elaborated and are consistent with the programme objectives.
  - The admission preconditions have been set and properly applied.
  - The programme structure is logical and the content relevant.
  - The courses have been properly designed and are delivered accordingly.
  - The teaching and learning methods are student-centred and relevant for a PhD level.
  - The evaluation procedures are in place and transparent.
  - The PhD students are offered many consultation opportunities.

- A qualified team of supervisors has been gathered.
- Highly qualified academic staff has been gathered to run the programme.
- The evaluation of lecturers by the students is in place.
- A very good workshop is operational and available for the PhD students.
- State-of-the art equipment have been purchased or built-in in some areas.
- The financial resources have been mobilised to run the programme.
- The institutional Quality Assurance policy has been developed.

Compliance of the Programme with the Accreditation Standards

1. Educational programme objectives, learning outcomes and their compliance with the programme

The programme has clearly established objectives and learning outcomes, which are logically connected to each other. The programme objectives are consistent with the mission, objectives and strategic plan of the institution. The programme learning outcomes are assessed on a regular basis in order to improve the programme.

1.1 Programme Objectives
The programme objectives define the set of knowledge, skills and competences it aims to develop to 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 expert panel has evaluated the doctoral programme in 'Engineering' of the Agricultural University of Georgia. Graduates are granted with the qualification of PhD in Engineering (third level of higher education). According to the documents provided by the Higher Education Institution (HEI), the programme offers 4 different directions: 'agro-engineering', 'tool making, automation and management systems', 'construction', and 'mechanics engineering and technology'. The objectives of the programme are to prepare qualified and competitive specialists in the above mentioned fields for local and international labour markets able to create new knowledge and support the implementation. The programme objectives clearly elucidate the graduates knowledge, skills and possible fields of activity. The graduates will be able to conduct academic and scientific activities both in higher education and scientific research institutions and in their structural units, in or outside Georgia. The expert panel confirms the lack of qualified researchers, experts and academic staff in Georgia making in these directions the programme very relevant and compliant with its aims. The objective of the doctoral programme gives clear information about the content and the information is public and available. The information, however, is not very detailed about the specific scientific topics the AUG is able to offer and the programme description would gain clarity if they were made publicly available. According to the website, the interviews conducted during the site visit and the documentation, the objectives of the programme are realistic and achievable. The HEI has already established some international cooperation and is working on further internationalisation of the programme. The objectives of the educational programme are perfectly aligned with the mission of the Agricultural University of Georgia to 'work in many different directions: scientific – research activity, teaching activity based on the result of scientific- research activities (new knowledge), creating best infrastructure and experimental-production activity, strategy and management of the University.
Evidences/indicators o The doctoral programme in engineering o Webpage of the HEI http://www.agruni.edu.ge.

- The self-evaluation report.
- Interviews during the site visit.

Recommendations:

None.

Suggestions for programme development:

The programme description is very broad and would gain clarity if detailed research topics and expertise would be made publicly available.

Best Practices (if applicable):

Not applicable.

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

The programme objectives have been clarified and are aligned with the stakeholders' expectations.

Evaluation

- ■ Complies with the requirements
- ☐ Substantially complies with the requirements
- ☐ Partially complies with the requirements
- ☐ Does not comply with the requirements

1.2. Programme Learning Outcomes

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

Descriptive summary and analysis of compliance with standard requirements

Based on the information available in the Self-Evaluation Report (SER), Apex and the information collected during the site visit, the expert panel found out that the learning outcomes are in compliance with the objective of the programme. Even though the programme learning outcomes are formulated briefly, they sufficiently explain the knowledge, skills and /or responsibility and autonomy the students acquire by the end of the programme. They are measurable, attainable and realistic and are in compliance with the doctoral level.

However, the programme learning outcomes have been split per scientific direction stating quite similar expected outcomes with different phrasing. This introduces some confusion and, since the PhD programme is unique, it would be more relevant to present a unified version of the learning outcomes applicable for the 4 directions and then define specific outcomes for each sub-field if relevant. This will also allow the University to better address 2013 recommendations to present the learning outcomes for each sub-field while demonstrating a perfect integration and coordination within the PhD programme.

According to the results of the interviews with the Head of the programme, academic staff, students, and representatives of the partner organisations, all the stakeholders were informally involved in the preparation of the programme, except of course for the graduates since the programme does not have any yet.

Evidences/indicators

- The doctoral programme in engineering.
- Webpage of the HEI http://www.agruni.edu.ge.
- The self-evaluation report.
- Interviews during the site visit.
- APEX.

Recommendations:

None.

Suggestions for programme development:

Unify the learning outcomes for the four scientific directions at programme level.

Best Practices (if applicable):

Not applicable.

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

The programme learning outcomes have been elaborated and are consistent with the programme objectives.

Evaluation

■ Complies with requirements

☐ Substantially complies with requirements

☐ Partially complies with requirements

☐ Does not comply with requirements

Programme compliance with the standard

Standard	Complies with the requirements	Substantially complies with the requirements	Partially complies with the requirements	Does not comply with the 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
The higher education institution has relevant, transparent, fair, public and accessible programme admission preconditions.
Descriptive summary and analysis of compliance with standard requirements A person who has a master degree or equivalent qualification relevant to master level, can be admitted to the PhD programme in Engineering. This meets the legal requirements of legislation as defined by the regulations of the Doctoral School approved by the University. The description of the educational programme, rules for admission and information about the exams are available on the website. Students and other persons who are interested in this programme can find information about admission preconditions. After checking all the documents, the expert panel concluded that the admission conditions to the PhD programme in Engineering are relevant to the legislation and are publicly available.
Evidences/indicators - The self-evaluation report. - Interviews during the site visit. - Web-page http://www.agruni.edu.ge/ge/node/803
Recommendations: None.
Suggestions for programme development: None.
Best Practices (if applicable): Not applicable.
In case of accredited programme, significant accomplishments and/or progress The admission preconditions have been set and properly applied.
Evaluation

■ Complies with requirements

☐ Substantially complies with requirements

☐ Partially complies with requirements

☐ Does not comply with requirements

2.2 Educational Programme Structure and Content

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

Descriptive summary and analysis of compliance with standard requirements

The programme is structured according to the Georgian law and European Credit Transfer and Accumulation System (ECTS). The programme consists of 180 credits: 45 credits are allocated for the doctoral training component and 135 credits are allocated for the research component. The courses and preconditions of the components are structured logically, with the slight exception of the third doctoral seminar (please, see hereafter).

Considering the programme international prospects, the expert panel noticed that the entry level in English language (B1 in the Common European Framework of Reference for Languages) is not ambitious enough for purpose. It could be improved during the doctoral training by offering additional language courses and/or delivering some courses in English.

Specialised courses are included in the Doctoral seminars (15 credits) and the topics are chosen by the students in collaboration with their supervisor(s). This is relevant to offer tailored-made doctoral training. However, it did not allow the expert panel to check if the credits and content of the specialised courses ensure the achievement of the learning outcomes. The expert panel, however, noticed during the interviews that the students have no difficulties in achieving the learning outcomes according to their current experience. According to the regulations of the University "the topic of the seminar can be provided from the dissertation thesis and can cover important issues of the field". It would be better if the third seminar would be completed before the fifth semester as the fifth and six semesters serve the preparation of general parts of the dissertation, checking the results and the preparation for final presentation. In this case the results achieved by the third seminar would be effectively included in achieving the final learning outcomes. Otherwise, the third seminar carries only the function to deepen the knowledge and it cannot be used by the student to improve the quality of dissertation research.

Overall, it is the opinion of the expert panel that the qualification granted is consistent with the programme content and learning outcomes.

According to the SER, paragraph 3.1, the University has developed a policy regulating the planning, designing and developing the programme. However, the expert panel could not gather much evidence of systematic formal actions to design or review the programmes and recommend therefore to disseminate and systematise the corresponding procedures.

Evidences/indicators

- The doctoral programme in engineering.
- The self-evaluation report.
- Interviews during the site visit.
- Web-page http://www.agruni.edu.ge/ge/node/803

Recommendations:

Better disseminate and systematise the policy for planning, designing and developing educational programmes and accordingly conduct the preparation/review of the programmes.

Suggestions for programme development:

Introduce courses of English and/or in English in the doctoral training.
Reconsider the sequence of the Doctoral seminars and complete the third one by the fourth semester.

Best Practices (if applicable):

Not applicable.

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

The programme structure is logical and the content relevant.

Evaluation

☐ Complies with requirements

■ Substantially complies with requirements

☐ Partially complies with requirements

☐ Does not comply with requirements

2.3 Course

- The student learning outcomes of each compulsory course are in line with the 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

The teaching material and references indicated in the syllabuses of the core courses such as: "academic writing for the doctoral students" – 6 credits; "preparation of dissertation research" – 6 credits; "research methodology" – 8 credits; "scientific project management" – 6 credits; "Teaching in higher educational system" - 4 credits; are relevant to the learning outcomes and serves the achievement of the programme aims.

The expert panel would like to highlight the very interesting course on "scientific project management" which is highly relevant for the student's personal development in research management. The course on "teaching in higher educational system" is relevant to develop the students' teaching skills but the corresponding learning outcomes could be reflected in the programme learning outcomes. Moreover, the course is currently focused on legal and administrative aspects and could include a deeper training on modern learning and teaching methods.

Evidences/indicators

- The doctoral programme in engineering
- Webpage of the HEI http://www.agruni.edu.ge
- The self-evaluation report
- Course syllabuses
- Interviews during the site visit.

Recommendations:

None.

Suggestions for programme development:

The programme learning outcomes could better reflect all the course learning outcomes.
Modern learning and teaching methods should be better addressed by the course on "teaching in higher educational system"

Best Practices (if applicable):

The course on "scientific project management".

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

The courses have been properly designed and are delivered accordingly.

Evaluation

- ■ 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

The 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

The PhD programme in engineering supports the implementation and planning of innovative research according to the fields. The students can conduct research in modern laboratories under supervision of high qualified professors. The Doctoral school cooperates with scientific – research centres both in Georgia and in other countries, that gives the opportunity to be integrated in the international scientific area. During the interviews, the students confirmed that they are using the resources of the University, conducting research, working on scientific topics, and attending scientific forums, conferences and seminars. The University also invites international experts to deliver seminars where the students can benefit from their experience. The employers mentioned that they support the research on different levels, some of them hoping that they can hire some graduates in the future.

Evidences/indicators

- The doctoral programme in engineering
- Webpage of the HEI http://www.agruni.edu.ge
- The self-evaluation report
- Interviews during the site visit.

Recommendations:

None.

Suggestions for programme development:
None.
Best Practices (if applicable):
Not applicable.
In case of accredited programme, significant accomplishments and/or progress
The courses have been properly designed and are delivered accordingly.
Evaluation ■ Complies with requirements ☐ Substantially complies with requirements ☐ Partially complies with requirements ☐ Does not comply with requirements

2.5 Teaching and learning methods
The programme is implemented using student-centred 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 Each teaching course syllabus describes the teaching and learning methods which are in compliance with the content and programme learning outcomes. It ensures their achievement at the proper PhD level. During the interview with the academic staff the relevance of the teaching and learning method for the PhD students with the individual needs were discussed. The representatives of the University mentioned that the students who need additional competences in different fields to achieve the outcomes have the opportunity to attend courses. This means that University supports the interests and needs of the students, they are giving the students individual learning path to help them finish their learning component which is a student-centred approach.
Evidences/indicators ○ The doctoral programme in engineering ○ Webpage of the HEI http://www.agruni.edu.ge ○ The self-evaluation report

- Interviews during the site visit.

Recommendations:

None.

Suggestions for programme development:

None.

Best Practices (if applicable):

Not applicable.

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

The teaching and learning methods are student-centred and relevant for a PhD level.

Evaluation

- ■ 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 achievement of the learning outcomes of the teaching component is assessed under the regulatory document of the HEIs "Rule of conducting exams". The rules stated by this document are used for every student, are transparent and relevant to the law. The programme contains 8 compulsory courses. Formative and summative methods are used to assess the achievement of the learning outcomes which is relevant. The objectives and assessment methods are elucidated in the syllabuses.

The procedures to assess the doctoral final thesis are given in the regulations of the Doctoral School. According to these regulations, the thesis is assessed once in the end during the final presentation. The final assessment procedure is public and is video recorded. The decision is stated in a report which is signed by the Head and

the Secretary of the PhD review committee. The assessment procedures of the PhD thesis ensures the proper presentation of students' achievements and final results. According to the document, the expert panel confirms that the University staff use relevant assessment methods.

The teaching components and the assessment criteria for PhD thesis are publicly available in the web page of the University. An appeal procedure is also implemented and described in the web page. The PhD students are provided feedback about assessing, or improving if applicable, the achieved results. This is coordinated by the staff of the doctoral school. This assessment is therefore fully transparent and compliant with the legal requirements.

Evidences/indicators

- The doctoral programme in engineering.
- Webpage of the HEI http://www.agruni.edu.ge.
- The self-evaluation report
- Interviews during the site visit.

Recommendations:

None

Suggestions for programme development:

None

Best Practices (if applicable):

Not applicable.

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

The evaluation procedures are in place and transparent.

Evaluation

- ■ Complies with requirements
- ☐ Substantially complies with requirements
- ☐ Partially complies with requirements
- ☐ Does not comply with requirements

Programme compliance with the standard

Standard	Complies with the requirements	Substantially complies with the requirements	Partially complies with the requirements	Does not comply with the requirements
Teaching methodology and organization, adequate evaluation of programme mastering	✓			

3. Student achievements and individual work with them

HEI creates student-centred 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 PhD students receive appropriate consultations primarily with their (co)supervisor(s). They are also regularly invited to present their progress during doctoral seminars offering them the opportunity of receiving other feedback. The 45 ECTS programme also provides them with the opportunity to develop their transversal competences and to get support in order to improve their research. Considering the low number of students in the programme, the supervisors can offer an 'open door' policy where the students can approach them anytime they need. Should the number of students significantly grows in the future, this policy would probably needs to be monitored and reassessed. The PhD students are made aware of the very important aspects of ethics and proper academic conduct (preventing plagiarism) during their doctoral training. However, AUG has not yet established a clear Academic Misconduct Policy defining the level of expectations applicable to all their students and staff. Regarding career advice, the programme relies on AUG central services (Career Advancement and Employment Office) which will need to develop specific expertise for the graduate of this programme in the future.
Evidences/indicators - The self-evaluation report - Interviews during the site visit..
Recommendations: None.
Suggestions for programme development: Develop an institutional academic misconduct policy (including plagiarism prevention).
Best Practices (if applicable):

Not applicable.

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

The PhD students are offered many consultation opportunities.

Evaluation

- ■ Complies with requirements
- ☐ Substantially complies with requirements
- ☐ Partially complies with requirements
- ☐ Does not comply with requirements

3.2. Master and Doctoral Student supervision

Master and Doctoral students have qualified thesis supervisors.

Descriptive summary and analysis of compliance with standard requirements

The PhD students have the opportunity to revise their initial research proposal and find the best suitable supervisor during the first semester. This procedure is very positive assuming that only the best students are enrolled in the programme.

Regarding the qualification of the supervisors, the expert panel has had the opportunity to examine many CVs of very qualified and experienced Faculty members. Moreover, should the expertise not be locally available, the PhD students have the opportunity to look for complementary supervision with international partners.

Evidences/indicators

- The self-evaluation report.
- Interviews during the site visit.

Recommendations:

None.

Suggestions for programme development:

None.

Best Practices (if applicable):

Further develop international cooperation to offer access to complementary expertise or equipment.

In case of accredited programme, significant accomplishments and/or progress A qualified team of supervisors has been gathered.
Evaluation ■ Complies with requirements ☐ Substantially complies with requirements ☐ Partially complies with requirements ☐ Does not comply with requirements

Programme compliance with the standard

Standard	Complies with the requirements	Substantially complies with the requirements	Partially complies with the requirements	Does not comply with the requirements
Student achievements and individual work with them	✓			

4. Providing teaching resources

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

According to the Self-Evaluation report (SER), 15 Professors, 13 Affiliated Professors and 22 Scientists are involved in the programme delivery. No other academic staff are formally involved. These figures could not be confirmed during the interviews and all the corresponding CVs have been provided. Based on the CVs provided, the expert panel confirms the very high qualification of the academic staff involved. They are all research active as demonstrated by recent publications in international peer-reviewed journals. They clearly have the experience to run a PhD programme. Considering the recent development of the engineering at AUG, it must, however, be noted that the expertise in engineering should be expanded. For the moment, the programme still relies a lot on biologists, zoologists, physicists, etc. It is also remarkable that no associate or assistant professors are formally involved in the PhD supervision. This raises the issue of training the next generation of PhD supervisors.

During the interviews, the expert panel learned that some invited lectures are organised, either by international partners taking benefit of ongoing research projects or by local industrial partners. This is very positive and the expert panel encourages AUG to continue and expand this initiative.

Currently, considering the low number of students, this programme does not raise any concern in terms of workload or staff/student ratio. If the number of students remains limited, as indicated during the interviews, the programme is clearly sustainable if its attractiveness is improved.

The programme is managed by a Doctoral School, concurrently with two other PhD programmes (in Agricultural and Natural Sciences). This ensures that all the programmes are ruled by the same regulations and reached the same standards. The PhD programme in Engineering offers 4 directions. Each one is managed by

a Professor who interacts with the Head of Doctoral School. As already mentioned, the SER reveals a lack of coordination of the 4 directions.

Evidences/indicators

- The self-evaluation report
- Interviews during the site visit.

Recommendations:

None.

Suggestions for programme development:

Expand the expertise in engineering by planning the recruitment of qualified doctors in engineering.
Make a plan to train young academic staff (assistant and associate professors) to become the next generation of PhD supervisors.
Increase the number of invited lectures given by international scholars or industrial partners.

Best Practices (if applicable):

Not applicable.

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

Highly qualified academic staff has been gathered to run the programme.

Evaluation

- ■ 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

According to the SER, AUG conducts regular appraisal of the academic, scientific and invited staff. During the interviews, the expert panel learned that the assessment is mostly based on students' surveys and informal discussion with the line management (the Dean). This appraisal is therefore neither systematic nor documented.

Regarding the professional development, AUG ensures that the academic staff can be involved in research projects and attend scientific conferences or meetings. No evidence of other training could be found. The expert panel considers that the current situation relies too much on personal initiative. The most active researchers, attracting funding, will have an easy access to international exposure whereas the others, who probably would benefit from such an exposure to develop their activities, are not systematically supported by the university. The expert panel did not find any clear evidence that the administration is providing support to submit and secure national or international research grants.

Evidences/indicators

- The self-evaluation report.
- The interviews during the site visit.
- No HR policy has been provided.

Recommendations:

None.

Suggestions for programme development:

Develop and implement a systematic annual staff appraisal.
Develop a HR policy for personal development allowing each Faculty member to be continuously trained to the highest standards with international exposure.

Best Practices (if applicable):

Not applicable.

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

The evaluation of lecturers by the students is in place.

Evaluation

- 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 available AUG infrastructure is mostly relevant to deliver the PhD programme and achieve the intended learning outcomes.

The library resources have not been detailed, but the expert panel could test the easy access to online databases which is an essential tool for the research in engineering.

The equipment has not been detailed either, but the expert panel has had the chance to make a tour through the facilities. Clearly, AUG is maintaining very high standards to offer practical training for their undergraduate and graduate students. Specifically for the PhD programme, the expert panel highly appreciated recent investment in cutting-edge equipment (3D printing, computer numerical control machines, etc.). However, such equipment is not available in every scientific field offered by the PhD programme. It is clearly the case for the 'construction' field where no state-of-the art lab was available to material, structural, soil and building physics testing. The panel has also been impressed by the expertise and flexibility of the workshop where the PhD students can find resources to produce specific parts according to their needs. The expert panel also learned during the interviews that the PhD students have the possibility to conduct their experiments abroad if needed. A strategic partnership has already been agreed with the Jülich Forschundszentrum (in Germany). The latter unfortunately does not cover all the research fields aimed by the PhD programme and the expert panel encourage AUG to expand their international partnership.

Evidences/indicators

- The self-evaluation report.
- Interviews during the site visit.
- Facilities tour during the site visit.

Recommendations:

None.

Suggestions for programme development:

Expand the international partnership to cover all the scientific fields offered by the PhD programme.

Best Practices (if applicable):

AUG makes a workshop will highly qualified technical assistance available to the PhD students.
International cooperation to allow the PhD students to have access to the necessary equipment.

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

A very good workshop is operational and available for the PhD students.
State of the art equipment have been purchased or built-in in some areas.

Evaluation

- ■ 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

AUG does not elaborate a budget by programme. The budget has therefore not been detailed. The current programme has, however, marginal costs since the number of students is low (less than 10) and all the persons involved are also involved in other under- or graduate programmes. Moreover, each PhD student is supported by a research grant which includes working costs. The programme is therefore clearly budgetary feasible.

Evidences/indicators

- The self-evaluation report.
- Interviews during the site visit.

Recommendations:

None.

Suggestions for programme development: None.
Best Practices (if applicable): None.
In case of accredited programme, significant accomplishments and/or progress The financial resources have been mobilised to run the programme.
Evaluation ■ Complies with requirements ☐ Substantially complies with requirements ☐ Partially complies with requirements ☐ Does not comply with requirements

Programme compliance with the standard

Standard	Complies with the requirements	Substantially complies with the requirements	Partially complies with the requirements	Does not comply with the requirements
Providing teaching resources	✓			

5. Teaching quality enhancement opportunities

In order to enhance the teaching quality, the higher education institution utilises internal and external quality assurance services and also periodically conducts programme monitoring and review. Relevant data are collected, analysed and utilised for informed decision making and programme development on a regular basis.

5.1 Internal quality
The 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. The programme staff utilise quality assurance results for programme improvement.
Descriptive summary and analysis of compliance with standard requirements The Agricultural University of Georgia has developed an institutional system of Quality Assurance. This policy includes systematic student surveys conducted every semester using the SurveyMonkey platform. The quantitative data can be complemented by qualitative studies, including interviews and focus groups. The results are analysed by the Head of programme. This procedure is supposed to feed the PDCA (Plan-Do-Check-Act) cycle, which has become a standard in the higher education. However, the panel found little evidence that this cycle is already operational. Data analysis reports and clear action plans should have been provided as evidence. A very important tool of any internal quality assurance system is the elaboration of self-evaluation reports (SERs). In this case, it is the opinion of the panel that the SER submitted for this assessment did not deserve enough attention. Many sections have been overlooked or do not provide sufficient details to address the corresponding criteria (for instance, sections 2.4, 2.6, 3.2, 4.1, 4.2, 5.2 and 5.3) and the SER contains little evidence to support the statements made. The composition of the self-evaluation group, involving mostly by senior managers, is also very unusual. The international practice suggests to compose a group with the people directly involved in the programme management and to formally invite internal (students, graduates, staff) and external (Alumni, employers, ...) stakeholders. The panel found little evidence that the SER has been adequately shared among the stakeholders and approved by relevant committees or boards. The role and impact of the internal quality assurance office have been clearly elucidated or observed by the panel. The quality culture within the University appears to be still emerging and there is an urgent need to develop robust procedures and initiatives to share the importance of quality assurance within the University community.
Evidences/indicators - Statistical data on the student progression and drop-outs.

- ☐ The Self-Evaluation Report.
- ☐ Interviews during the site visit.

Recommendations:

Develop the quality culture within the University based on robust QA policies and procedures involving all the stakeholders.

Suggestions for programme development:

None.

Best Practices (if applicable):

Not applicable.

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

The institutional Quality Assurance policy has been developed.

Evaluation

☐ Complies with requirements

■ Substantially complies with requirements

☐ Partially complies with requirements

☐ Does not comply with requirements

5.2 External quality

The higher education institution utilises the results of external quality assurance to improve the programme on a regular basis.

Descriptive summary and analysis of compliance with standard requirements

The Self-Evaluation report confirms that the University is welcoming external assessments and that they are used by the programme managers. However, the panel found little evidence that external assessments have been collected or used. Specifically, the 2013 Accreditation report contained some recommendations which are not analysed in the SER. It is therefore unclear if these recommendations have been addressed by the University, and how. Regarding specifically the PhD programme, it must be noted that it is very positive to involve external examiner(s) in the PhD thesis evaluation committee. These members could be consulted about the quality of the programme as well.

Evidences/indicators

- The self-evaluation report.
- The 2013 Accreditation report has been made available by the National Centre.
- Interviews during the site visit.

Recommendations:

The University needs to systematically integrate external assessment in their quality procedures including addressing the possible recommendations and suggestions.

Suggestions for programme development:

Formally consult the external examiners on the programme quality and possible improvements.

Best Practices (if applicable):

Not applicable.

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

No significant progress has been evidenced in terms of external quality.

Evaluation

☐ 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 are 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 utilised for programme improvement.

Descriptive summary and analysis of compliance with standard requirements

The SER states that the PhD programme is periodically reviewed involving all the stakeholders but does not provide clear evidence to support this statement. The management bodies, including their composition, role and responsibilities, frequency of meetings have not been detailed. Minutes of these meetings are not provided as evidence. During the interviews, it has been confirmed that most of the monitoring and review are performed informally, with personal contacts with some stakeholders (students, employers). The quality assurance standards, however, require to formalise the procedure by empowering a programme committee (or equivalent) involving all the stakeholders.

Evidences/indicators

- The self-evaluation report.
- Interviews during the site visit.
- No programme review policy has been provided.

Recommendations:

The programme monitoring and the periodic review need to be systematically conducted formally involving all the stakeholders.

Suggestions for programme development:

None.

Best Practices (if applicable):

Not applicable.

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

No significant progress has been observed.

Evaluation

☐ Complies with requirements

☐ Substantially complies with requirements

■ Partially complies with requirements

☐ Does not comply with requirements

Programme compliance with the standard

Standard	Complies with the requirements	Substantially complies with the requirements	Partially complies with the requirements	Does not comply with the requirements
Teaching quality enhancement opportunities			✓	

Enclosed Documentation (If Applicable)

Not applicable.

HEI's Name: NPL – Agricultural University of Georgia

Higher Education Programme Name: PhD in Engineering

Number of Pages of the Report: 33

Programme Compliance with the Standards

Standard	Complies with the requirements	Substantially complies with the requirements	Partially complies with the requirements	Does not comply with the requirements
1. The 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 organisation, 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

Philippe, Bouillard, signature

Expert Panel Members

Manana, Moistrapishvili, signature