Decision Regarding Assessment of the Architecture and Building Study Programme Group

TTK University of Applied Sciences

12/06/2017

The Quality Assessment Council for Higher Education of the Estonian Quality Agency for Higher and Vocational Education decided to approve the report by the Assessment Committee and to conduct the next quality assessment of the Architecture and Building study programme group in the first and second cycles of higher education at TTK University of Applied Sciences in seven years

On the basis of subsection 10 (4) of the Universities Act and point 41.1 of the document, 'Quality Assessment of Study Programme Groups in the First and Second Cycles of Higher Education', authorised in points 3.7.3 and 3.7.1 of the Statutes of the Estonian Quality Agency for Higher and Vocational Education; the Quality Assessment Council for Higher Education of EKKA (hereinafter referred to as 'the Council') affirms the following:

1. On 14.03.2016 TTK University of Applied Sciences and EKKA agreed upon a time frame to conduct a quality assessment of the study programme group.

2. The Director of EKKA, by her order on 15.02.2017, approved the following membership of the quality assessment committee for the Architecture and Building study programme group in the first and second cycles of higher education at Tallinn University of Technology, Estonian University of Life Sciences, TTK University of Applied Sciences and Estonian Academy of Arts (hereinafter referred to as 'the Committee'):

Matti Rautiola	Chair of the Committee – Professor, Architect, Director General, ARRAK Architects Kiiskilä, Rautiola, Building Information Foundation (Finland)
Hermann Blum	Student, ETH Zürich, ESU (Switzerland)
Philippe Bouillard	Professor, Université Libre de Bruxelles (Belgium)
Ardi Van Den Brink	Professor of Landscape Architecture, Wageningen University (Netherlands)
Emma Järvenpää	Student, Leiden University (Netherlands)
Tiit Kerem	CEO, AS Telora-E (Estonia)

Juris Rihards Naudžuns	Professor, Riga Technical University (Latvia)
Herman Neuckermans	Professor Emeritus, KU Leuven, Department of Architecture (Belgium)
Mark G. Richardson	Deputy Vice President for Global Engagement, University College Dublin (Ireland)
Paul Rullmann	Chairman of the WTR, the Scientific Technical Council of SURF (Netherlands)

3. TTK University of Applied Sciences submitted the following study programmes for evaluation under the Architecture and Building study programme group:

   Civil Engineering (Prof HE)
   Road Construction (Prof HE)
   Construction Geodesy (Prof HE)
   Applied Architecture (Prof HE)

4. TTK University of Applied Sciences submitted a self-evaluation report to the EKKA Bureau on 14.12.2016 and the assessment coordinator forwarded it to the Committee on 21.12.2016.

5. An assessment visit was made to TTK University of Applied Sciences on 15.03.2017.

6. The Committee sent its draft assessment report on the Building study programmes to the EKKA Bureau on 26.04.2017, EKKA forwarded it to TTK University of Applied Sciences for its comments on 5.05.2017, and the University delivered its response on 16.05.2017. The Committee sent its draft assessment report on the Architecture study programmes to the EKKA Bureau on 2.05.2017, EKKA forwarded it to TTK University of Applied Sciences for its comments on 12.05.2017, and the University delivered its response on 16.05.2017.

7. The Committee submitted its final assessment report on the Building study programmes to the EKKA Bureau on 24.05.2017 The Committee submitted its final assessment report on the Architecture study programmes to the EKKA Bureau on 5.06.2017. Those assessment reports are integral parts of the decision, and are available on the EKKA website.

8. The Secretary of the Council forwarded the Committee's final assessment reports along with the University's self-evaluation report to the Council members on 5.06.2017.

9. The Council with 11 members present discussed these received documents in its session during 11–12.06.2017 and, based on the assessment reports, decided to point out the following strengths, areas for improvement, and recommendations regarding the Architecture and Building study programme group in the first and second cycles of higher education at TTK University of Applied Sciences.

A general recommendation for the higher education institutions (HEIs) regarding the Architecture and Building study programme group

Collaboration among departments of architecture and building in different Estonian HEIs should be significantly improved in order to use the scarce available resources as efficiently as possible and thereby support development of the broad area of study of architecture and building at the national level.

General recommendations for the HEIs regarding the BUILDING study programmes

1) The Building study programmes should be marketed in a more professional way, including providing better information on the study programmes, showing the profession of civil engineers in a more attractive light, and changing attitudes that have significantly reduced the number of female applicants.
2) The HEIs should develop policies regarding pedagogical training for all academic staff and introduce mandatory pedagogical leadership trainings for those who coordinate the study programmes.
3) The HEIs should significantly increase internationalisation of the study programmes by simplifying international student mobility in collaboration with employers, by offering alternative mobility paths to students, by ensuring credit transfers to avoid a longer duration of studies, by introducing courses taught in English and by improving the attractiveness of study programmes to international students (e.g. launching study programmes taught in English).
4) The students should be more involved in research projects.
5) The dropout rate problem should be addressed at both national and programme levels:
    i. The Ministry of Education and Research, HEIs and professional associations should collaborate to identify the primary systemic reasons students drop out and then collectively eliminate those reasons.
    ii. In parallel, at the programme level, efforts should be continued to implement action plans for reducing dropout rates: include engineering subjects in syllabi during the first years of study, render the learning outcomes of core mathematics and physics modules to be more engineering focused, involve the best teaching staff in the first year, make maximum use of e-learning, make teaching more student-centred, etc.
6) The HEIs should develop clear staff development policies based on each HEI's values and expectations with regard to high-quality teaching. Those values and expectations should also be reflected in the selection and promotion criteria for the teaching staff.

<u>The BUILDING study programmes at TTK University of Applied Sciences</u>

1) It is recommended that the University further develop an education and marketing programme launched by the '100 steps' initiative.
2) The quality assurance processes should be formalised to avoid over-reliance on individual opinions.
3) The concept of students' short-term practical placements in companies abroad should be further developed.
4) Students do not much come in contact with research in the framework of the study programme. Better integration of learning and research is recommended.
5) The number of courses taught in English should be increased as there is a noticeable demand for this.
6) Feedback should be gathered from University graduates who have pursued master's degrees, to further improve students' preparation for their master degree studies.
7) Indoor climate conditions (lighting and ventilation) of some lecture rooms should be improved.

Civil Engineering (Prof HE)

<u>Strengths</u>

1) The study programme is developed by good teamwork with the involvement of all staff members. This ensures a logical sequence of courses and minimises overlaps in their content.
2) The Faculty of Construction has launched a project in which students are provided with guidance on time management related to their course credits.

3) E-learning support is well integrated and allows for good cooperation between the staff members of the Faculty of Architecture and Environmental Engineering and the Faculty of Construction.
4) The learning environment of the Faculty of Construction is impressive (laboratories, test equipment, the laboratory of virtual reality). The laboratories are available both for students in their studies and for laboratory staff in their R&D work.
5) Infrastructure investments are planned by taking into account, inter alia, existing resources available in other higher education institutions. This creates good opportunities for cooperation with neighbouring institutions.
6) Five e-courses have been awarded a quality label by the Information Technology Foundation for Education (HITSA).
7) Lecturers offer students individual teaching and supervision which allows students to complete their studies as quickly as possible.
8) Members of the teaching staff are highly motivated, actively enhance their pedagogical skills and excellence in research, and undergo trainings in enterprises. Lecturers who pursue their doctorates have reduced teaching loads and receive grants from the 'Young Lecturer Programme'.
9) The expert opinions of the lecturers of the Faculty of Construction are often reflected in the media.
10) The University has close relationships with enterprises where in-service trainings are organised and ideas for new research topics received.

Areas for improvement and recommendations

1) In terms of interdisciplinary experience, it is recommended that the study programme conduct group work with students of the Architecture programme as well.
2) For the sake of optimising the use of resources, better conditions should be created for delivering joint lectures to the different study groups.
3) Accreditation of laboratories should be considered.
4) Students should be more active in responding through the feedback system.
5) Students should participate more actively in international mobility. To this end, cooperation with international partners should be enhanced and the number of courses taught in English increased.
6) Due to an excessive workload, not all faculty members have been able to pursue their self-development. Lecturers' self-development is mainly professional, not pedagogical. It is recommended that more emphasis be placed on the development of lecturers' teaching skills and this be supported where needed.
7) A larger number of international lecturers should be involved in the teaching process.
8) Prior to introducing new specialisations, enrolment rates should be increased and dropout rates reduced by building on the study programme's strengths (teaching staff, infrastructure, learning experience of students).

Construction Geodesy (Prof HE), Road Construction (Prof HE)

Strengths

1) Stakeholders are included in the process of study programme development. For instance, in the development of the Road Construction study programme, the road construction and geodesy research group from Tallinn University of Technology was included, where several students later continue with their master degree studies.

2) There is a sustained demand for graduates in the labour market.
3) The Road Construction study programme has been aligned with similar programmes in the Nordic countries, providing good student exchange possibilities through the Erasmus programme.
4) The latest technologies are available to the Construction Geodesy study programme due to cooperation with external partners.
5) The e-learning environment is of high quality and continues to evolve.
6) Members of the teaching staff are qualified, motivated and actively engaged in research.

Areas for improvement and recommendations

1) The four-year study programme of Construction Geodesy prepares graduates for work as professional geodesists, but the professional qualification cannot be awarded because negotiations are still ongoing with the Estonian Qualifications Authority *Kutsekoda*. This uncertain situation should be resolved as soon as possible.
2) Building Information Modelling (BIM) would require more attention in the study programmes.
3) Consideration should be given to the launch of a laboratory accreditation programme.
4) A larger number of modules should be taught in English to enhance international mobility participation rates by both staff and students.
5) Measures should be taken at the institutional level to keep the teaching and research workloads of the teaching staff in reasonable balance.
6) The widest opportunities should be made available for the teaching staff to participate in international teaching and research cooperation programmes.

General recommendations for the HEIs regarding the ARCHITECTURE study programmes

1) When designing the content of study programmes the HEIs should, within the limits of existing resources, take into account future challenges in society, in particular as regards demographic changes, environmental problems, technological revolution, globalisation of the economy, standards and industry, the development of civil society, etc. In the rapidly changing world it would be useful to seek a cross-disciplinary collaboration, especially between building and architecture specialties, but also with other universities.
2) It remained unclear to the Assessment Committee as to why the already limited resources have been split between the three schools of architecture located in close proximity to each other. The HEIs and study programmes should collaborate closely, differentiate their study programmes and explore ways to create further synergies.
3) It is recommended that the HEIs encourage and pursue new forms of cooperation with their stakeholders.
4) Remuneration of lecturers must be competitive, because low salaries are associated with the risk of losing leading lecturers and there is less chance to involve new talents, including from abroad.
5) The problems with transfers of credits acquired through external mobility should be addressed.

The APPLIED ARCHITECTURE study programme at TTK University of Applied Sciences (TTK UAS)

Strengths

1) The graduate employment rate is 93%. Employers are satisfied with graduates' qualifications.
2) A number of graduates continue their studies in the master degree programme at the Estonian Academy of Arts (EAA). The two higher education institutions have signed an agreement that EAA will accept 20 TTK UAS graduates within four years.
3) The library is very well equipped with the necessary specialised literature.
4) Teaching methods used in the teaching are modern and effective, and support the development of a digital culture. The laboratory of virtual reality is available for use by students.

5) Warm and friendly relationships between the staff and students have led to a pleasant atmosphere in the faculty. Lecturers have committed themselves to students.
6) The international student mobility rate is high.
7) Effective support is provided for the international students.

Areas for improvement and recommendations

1) There is still room for improvement in the design quality of students' project work. Here inspiration should be sought from the best architecture schools in Europe.
2) The existing classroom for modelling is too small; it could be made larger by adding an attic story to the academic building.
3) Students should be shown various samples of building materials and building elements during the course of their studies.
4) A challenge is to find and recruit the best practitioners in the field as design teachers.
5) The feedback system should be formalised.
6) According to the statistics for 2013–2015, the student dropout rate was steadily increasing; this problem requires additional attention and solutions.

10. Point 41 of the document, 'Quality Assessment of Study Programme Groups in the First and Second Cycles of Higher Education', establishes that the Quality Assessment Council shall approve an assessment report within three months after receipt of the report. The Council shall weigh the strengths, areas for improvement, and recommendations pointed out in the assessment report, and then shall decide whether to conduct the next quality assessment of that study programme group in seven, five or three years.

11. The Council weighed the strengths, areas for improvement, and recommendations referred to in point 9 of this document and found that the study programmes, the teaching conducted under these programmes, and development activities regarding teaching and learning conform to the requirements, and, on the basis of point 41 of the document, 'Quality Assessment of Study Programme Groups in the First and Second Cycles of Higher Education',

DECIDED

to approve the assessment report and to conduct the next quality assessment of the Architecture and Building study programme group in the first and second cycles of higher education at TTK University of Applied Sciences in seven years.

The decision was adopted by 11 votes in favour. Against 0.

12. The Bureau of EKKA will coordinate a date for the next quality assessment of the study programme group with TTK University of Applied Sciences no later than 12.09.2023.

13. The Council proposes that TTK University of Applied Sciences will submit an action plan to EKKA with regard to the areas for improvement and recommendations pointed out in the report no later than 12.06.2018.

14. A person who finds that his or her rights are violated or his or her freedoms are restricted by this decision may file a challenge with the EKKA Quality Assessment Council within 30 days after the person filing the challenge became or should have become aware of the contested finding. A judicial challenge to the decision may be submitted within 30 days after its delivery, filing an action with the Tallinn courthouse of the Tallinn Administrative Court pursuant to the procedure provided for in the Code of Administrative Court Procedure.

Tõnu Meidla
Chair of the Council

Hillar Bauman
Secretary of the Council