

TTK University of Applied Sciences

Decision on Institutional Accreditation

07.01.2022

The Higher Education Assessment Council of the Estonian Quality Agency for Higher and Vocational Education decided to accredit TTK University of Applied Sciences for seven years.

Pursuant to clause 43.1 of the document "Guidelines for Institutional Accreditation," established on the basis of the authorization contained in § 38 (3) of the University Act and in § 24 (5) of the Statutes of the Education and Youth Board, the Higher Education Assessment Council of the Estonian Quality Agency for Higher and Vocational Education (hereinafter the Council) states the following:

1. TTK University of Applied Sciences coordinated the time of institutional accreditation with EKKA on 02.10.2020.
2. On the basis of point 8 of the document "Guide to Institutional Accreditation," the following study programmes of applied higher education were also evaluated within the framework of institutional accreditation:

Civil Engineering

Mechanical Engineering

Transport and logistics

Accounting

3. By order of 18.05.2021, the Director of EKKA approved the institutional accreditation committee (hereinafter Committee) in the following composition:

Eva Werner (Chairman)	Professor and former Rector, IMC University of Applied Sciences, Krems, Austria
Philippe Bouillard (Secretary)	Professor and former Vice-Rector, Université Libre de Bruxelles; Ecole Polytechnique de Bruxelles, Belgium
Gete Suurraid	Student of the Estonian Aviation Academy, Estonia
Klaus Peter Kratzer	Professor and former Vice-Rector, Ulm University of Applied Sciences, Germany

Sebastiaan Meijer	Professor and Vice-Dean, School of Engineering Sciences, KTH, Sweden
Illimar Paul	representative of employers, owner of SENSEI OÜ, Development Manager of Estonian Logistics Cluster, Estonia
Jan-Eric Ståhl	Professor and former Vice-Rector, Lund University, Sweden
Tatjana Volkova	Professor and former Rector, BA School of Business and Finance, Latvia

4. TTK submitted the self-analysis report to the EKKA office on 29.06.2021, and the EKKA assessment coordinator sent the self-analysis report to the Committee on 02.07.2021.
5. The virtual assessment visit at TTK took place on 11.–14.10.2021.
6. The Committee sent the draft assessment report to the EKKA office on 19.11.2021, and EKKA forwarded the draft assessment report to the higher education institution for comment on 19.11.2021, and TTK declared the absence of comments on 22.11.2021.
7. The Committee submitted the final assessment report to the EKKA office on 22.11.2021. The assessment report is an integral part of the decision. The report is available on the EKKA website.
8. The Secretary of the Assessment Council forwarded the final assessment report and self-analysis report to the members of the Assessment Council on 03.01.2022.
9. The assessment of the assessment committee were as follows:

Standard	Assessment
Strategic management	Meets the requirements
Resources	Meets the requirements
Quality culture	Meets the requirements
Academic ethics	Meets the requirements
Internationalization	Meets the requirements
Teaching staff	Meets the requirements
Study programme	Meets the requirements
Learning and teaching	Meets the requirements
Assessment of students	Meets the requirements
Learning support systems	Meets the requirements

Research, development and/or other creative activities	Meets the requirements
Serving the society	Meets the requirements

★ **Worthy of recognition:**

The recently formed Institution of Higher Education Didactics Research Group and the Innovation and Entrepreneurship Center are valuable instruments for the development of teaching and research.

10. The Council discussed the received documents at the meeting on 07.01.2022 with the participation of 13 members and decided to point out the following strengths¹ of TTK, areas for improvement and recommendations,² as well as proposals for further developments³.

10.1. STRATEGIC MANAGEMENT

Strengths

1. Strategic management is systemic and includes both internal and external parties of the higher education institution. Responsibilities are clearly defined, and continuous monitoring of the implementation of the development plan takes place both at the central and unit levels.

Areas for improvement and recommendations

1. Although TTK has defined the indicators of its activities, the development plan lacks performance indicators in such important areas as research and development, service to society, and internationalization. Indicators must be accompanied by target indicators in order to be able to measure the success and impact of activities.

Proposals for further developments

1. In order to take into account the challenges and opportunities of the future, it is advisable to develop longer-term strategic plans involving a wide range of stakeholders.

10.2. RESOURCES

Strengths

¹ Achievements that exceed the level of the standard (not compliance with the standard) are presented as strengths.

² Areas for improvement and recommendations point to shortcomings in meeting the requirements of the institutional accreditation standard and affect the formation of the final decision of the Council.

³ Proposals for further developments are proposals for improvement that do not contain a reference to non-compliance with the standard and the inclusion or exclusion of which is at the discretion of the institution of higher education. Proposals for further developments will not affect the final decision of the Council.

1. The career model and the development plan for teaching staff are well designed and enable targeted support for the professional and personal development of employees.
2. Employee satisfaction with the work environment and organization is high.
3. As a result of careful financial management, the budget is in the black.
4. TTK's strategic capability and resource utilization enhancement project "TTK Lean" results in a leaner organizational structure and virtually paperless administration.
5. The infrastructure is modern and constantly evolving. For example, the laboratories and equipment of the Civil Engineering Study Programme are of a good level and fully suitable for teaching. In the Transport and Logistics Study Programme, the resources and learning environment have improved very significantly in recent years.

Proposals for further developments

1. It is recommended to improve the capacity of the digital infrastructure to cope with the increased internet traffic caused by distance and hybrid learning.
2. It is recommended to review the communication channels within the higher education institution in order to ensure their compatibility in connection with the merger of Lääne-Viru College.
3. It is recommended to harmonize the salaries of academic staff at Mõdriku with the general salary level of TTK.

10.3. QUALITY CULTURE

Strengths

1. The annual planning process is comprehensive and highly inclusive of stakeholders.
2. The continuous improvement (PDCA) cycle is well implemented in the higher education institution and supports the planning of institutional development.
3. The agreed understanding of quality is shared by all employees and is firmly rooted in the institution.
4. The higher education institution has a strong feedback culture that takes into account the views of all stakeholders. Feedback is used for continuous improvement.
5. Cooperation with employers in improving the quality and relevance of study programme is ensured, among other things, thanks to a very dedicated board of advisors, which includes companies and professional organizations.

Areas for improvement and recommendations

1. It must be ensured that the terminology is harmonized in various documents (for example, the quality manual and the development plan).

Proposals for further developments

1. In order to make the processes and communication between different parties clearer, it is recommended to visualize the planned quality processes.
2. Since questionnaires and data submission are the responsibility of different support units depending on the target group of the study, there may be a risk of overlapping activities and confusion. It is advisable to critically review and align the distribution of tasks and responsibilities for questionnaires and data collection to avoid duplication and possible confusion.

10.4. ACADEMIC ETHICS

Proposals for further developments

1. Interviews with students revealed their awareness of plagiarism, but their knowledge of other aspects of academic ethics needs improvement. It is advisable to cover topics of academic ethics not only in the first academic year but also in the future, e.g., through case studies.

10.5. INTERNATIONALIZATION

Strengths

1. The general atmosphere in the higher education institution is clearly supportive of internationalization.

Areas for improvement and recommendations

1. In order to realize the intentions declared in the development plan, specific measures and activities must be planned.
2. Since the analysis of the sample of study programmes shows problems in internationalization, it is necessary to develop internationalization portfolios suitable for different study programmes with the aim of developing the international dimension and international competence of students in each study programme. Since long-term mobility is difficult for various reasons, short-term mobility needs to be introduced and intensified.

Proposals for further developments

1. In order to promote internationalization, it is advisable to make this topic more visible at the institutional level.
2. It is recommended to develop a system for evaluating the quality and intensity of cooperation agreements concluded with existing foreign higher education institutions.
3. It is advisable to expand virtual international mobility.
4. In order to strengthen the competence of graduates, it is recommended to include compulsory English modules in the study programmes.
5. Based on the specifics of the field and taking into account the geographical location of Estonia, internationalization should be given special attention in the Transport and Logistics Study Programme, while also using the opportunities of companies.

10.6. TEACHING STAFF

Strengths

1. The faculty career management system is comprehensive and efficient in evaluating employees and supporting their development.
2. The age distribution of academic staff is entirely appropriate and sustainable.
3. The proportion of guest lecturers (including professional practitioners) is good and also supports internationalization.
4. The level and volume of annual professional and pedagogical training of lecturers are very good.
5. The series of seminars "From Colleague to Colleague" (which could be further expanded) has an important role in horizontal integration in the higher education institution.

Proposals for further developments

1. The ratio of lecturers to students was very good until 2018 (approximately 22:1), but after the merger of Lääne-Viru College, it is approximately 27:1. It is recommended to improve this ratio.
2. In order to develop the capacity of research and development activities, it is recommended to increase the number of teaching staff with a Doctorate degree (including industrial/business doctorates). In the "Civil Engineering" and "Mechanical Engineering" study programmes, the research capacity of teaching staff should be increased, including through international research and development projects and international mobility.
3. Competition for academic positions is quite low. It is advisable to try to improve the visibility and attractiveness of TTK as an employer.

10.7. STUDY PROGRAMME

Strengths

1. The employment rate of graduates is almost 100%.
2. The input of companies into the study programmes, the collaborative relationships between companies and students, and the alignment of laboratories with the needs of companies are exemplary.
3. Several stakeholders are involved in the development and implementation of study programmes. The practical and theoretical modules in the study programmes are in a suitable balance and ensure the development of both professional and general skills of the students.

Areas for improvement and recommendations

1. The analysis of the study programmes of the sample revealed their different degrees of maturity both in shaping the study programme into a coherent whole, in formulating the planned learning outcomes, and in evaluating the achieved learning outcomes. For example, the Civil Engineering Study Programme lacks a systematic assessment of the achievement of learning outcomes, and learning outcomes are mainly formulated as passive verbs (knows, can understand, etc.). It is necessary to revise the study programmes and ensure their coherence.
2. The Civil Engineering Study Programme has not yet fully taken into account previous proposals related to the development of BIM (Building Information Modeling) studies. In this regard, the Institute of Civil Engineering must consult with external interest groups more in order to ensure the greatest possible impact on the entire Estonian construction sector through the changes.
3. The Mechanical Engineering Study Programme should ensure a balance between theory and practice, so that the Study Programme is not only aimed at today's needs, but also provides the necessary knowledge and skills for lifelong learning.

Proposals for further developments

1. Applied engineering dominates the study programmes, the share of the creativity component should be increased.
2. It is advisable to seek input from non-industry stakeholders when developing curricula, as engineers are not only a workforce in a particular industry sector, but they also change the world.
3. Wider cooperation with companies is desirable in order to increase the amount of research work, promote the culture of research work at TTK and thereby strengthen the study programmes.
4. A clearer awareness of strategic goals at different levels/curriculums of the higher education institution would help to ensure the long-term stability of the development path of TTK.
5. Considering the great needs of the labor market for graduates, the number of students in the study programmes of Transport and Logistics and Accounting should be increased.

10.8. LEARNING AND TEACHING

Strengths

1. The teaching staff's commitment to student-centeredness and continuous improvement of their teaching competence has created a positive learning atmosphere in the higher education institution.
2. The contribution of various stakeholders to the improvement of learning and teaching is diverse and well thought out.
3. The recently formed Institution of Higher Education Didactics Research Group and the Innovation and Entrepreneurship Center are valuable instruments for the development work.

Proposals for further developments

1. It is advisable to promote comparison and mutual learning between institutes and study programmes in order to level the differences in the approach to quality.
2. It is advisable to promote further digitization of teaching and learning and increase international learning opportunities for all students.
3. It is advisable to strengthen cooperation with companies in the framework of joint research projects and to try to involve all (not only the most talented) students in the projects.
4. The use of artificial intelligence and machine learning methods should be expanded in the Transport and Logistics Study Programme.

10.9. ASSESSMENT OF STUDENTS

Areas for improvement and recommendations

1. Students' awareness of assessment methods and criteria and their connection to learning outcomes is uneven across the study programmes. Faculty must consistently explain these topics to students at the beginning of each subject course.
2. The terms "evaluation method" and "evaluation criterion" are sometimes mixed up in study programmes. It is necessary to clearly distinguish evaluation methods and evaluation criteria in subject course descriptions.
3. Sometimes (e.g., in the Civil Engineering Study Programme), the learning outcomes and the evaluation of the level of their achievement are not sufficiently linked. Learning outcomes and evaluation must be better interlinked, and it must be pointed out how the achievement of learning outcomes relates to the evaluation scale.

10.10. LEARNING SUPPORT SYSTEMS

Strengths

1. The recently introduced interviews with first-year students have proven to be efficient in the early identification of learners at risk of dropping out.
2. A wide range of online learning options allows students to balance studies, paid work, and family responsibilities.
3. TTK has a friendly and supportive atmosphere for students.

10.11. RESEARCH, DEVELOPMENT, AND/OR OTHER CREATIVE ACTIVITIES

Strengths

1. Efficient use of resources in the form of integrated laboratories supports both research and teaching.
2. Interdisciplinary research groups have been formed.

Areas for improvement and recommendations

1. The amount of research work in the higher education institution is modest and needs to be increased.
2. It is necessary to develop a plan to increase funding for research and to increase the volume of applied research and the involvement of teaching staff in research and development activities.

Proposals for further developments

1. It is necessary to continue and strengthen efforts to provide TTK research and development activities to companies.
2. Changes in the volume of research and development activities should be assessed regularly, and operational management decisions should be made based on the results.
3. Students should be involved in research projects in all study programmes.

10.12. SERVING THE SOCIETY

Strengths

1. Several public events organized by TTK and widely known in society are worth mentioning, such as the annual logistics seminar organized by students, the thematic series "100 steps in engineering" by the Institute of Civil Engineering, and public financial training.

Proposals for further developments

1. It is recommended to develop a strategy for serving society with indicators for assessing the impact of TTK on society as a whole.

11.If all standards are assessed as "compliant," the Assessment Council assesses that the University's management, work organization, teaching and research activities, and the learning and research environment meet the requirements and makes a decision to accredit the higher education institution for seven years.

12.In view of the above, the Council

DECIDED

- 1) To accredit TTK University of Applied Sciences for seven years;**
- 2) According to the statute of the EKKA quality mark, TTK University of Applied Sciences should be awarded the EKKA quality mark.**

The decision was adopted with 13 votes in favor, and none opposed.

13.Accreditation is valid until 07.01.2029. The time of the next institutional accreditation will be coordinated by the EKKA office with TTK University of Applied Science no later than 07.01.2028.

14.The Council proposes that TTK University of Applied Sciences submit an overview of the University's activities regarding the consideration of the improvement areas and recommendations outlined in the Council's decision no later than 07.01.2023.

15.A person who considers that the decision has violated his or her rights or restricted his or her freedoms may file a challenge with the Assessment Council of EKKA within thirty (30) days after the appellant became aware of or should have become aware of the contested act. The Council will forward the challenge to the EKKA Challenge Committee, which, within five (5) days of receiving the challenge, will submit a written impartial opinion to the Council regarding the justification of the challenge. The Assessment Council shall resolve the challenge within ten (10) days of receipt, taking into account the reasoned position of the appeal committee. If the challenge needs to be further investigated, the Assessment Council may extend the term for reviewing the challenge by up to thirty (30) days. Contestation of a decision in court is possible within thirty (30) days of its service by submitting an appeal to the Tallinn Courthouse of the Tallinn Administrative Court pursuant to the procedure provided for in the Administrative Court Procedure Act.

Hillar Bauman
Secretary of the Council