The decision of the Higher Education Assessment Council of the Estonian Quality Agency for Education

Estonian Entrepreneurship University of Applied Sciences

Decision on the reassessment of professional higher education in the Informatics and Information Technology study programme group

5.06.2023

The Higher Education Assessment Council of the Estonian Quality Agency for Education decided that the professional higher education in the Informatics and Information Technology study programme group conforms to the level required.

Pursuant to subsections 9(3) and 10(1) of the Higher Education Act and clause 32.1 of the document *Guidelines for Initial Assessment and Re-assessment of Study Programme Groups*, established by the Estonian Quality Agency for Education (HAKA), the Higher Education Assessment Council of the Estonian Quality Agency for Education (hereinafter referred to as the Council) states the following:

1. The Ministry of Education and Research submitted the information required for the reassessment of professional higher education in the Informatics and Information Technology study programme group of the Estonian Entrepreneurship University of Applied Sciences (hereinafter: EUAS) to HAKA on 20.12.2022.

2. On 23.02.2023, the Director of HAKA approved the following composition of the committee for the reassessment (hereinafter referred to as the Committee):

Urve Mets (Chair)	Head of the Committee; SA Kutsekoda; Senior Research Coordinator at OSKA
Peeter Normak	Professor, Director of the School of Digital Technologies at Tallinn University
Kalle Tammemäe	Assistant Professor, Director of the IT College of Tallinn University of Technology
Marek Kusmin	Co-founder and software developer at Codeborne OÜ
Engel-Mari Mölder	Student at Tallinn University of Technology

3. The higher education institution submitted the following study programmes in professional higher education for assessment:

   Software Development and Entrepreneurship
   Robotics Software Development

4. The Assessment Committee reviewed the information submitted by the higher education institution and the Ministry. An assessment visit was made to EUAS on 28.03.2023.

5. The Committee sent the draft assessment report to EUAS on 02.05.2023 to comment.

6. EUAS sent its comments on the assessment report on 16.05.2023.

7. The Committee submitted its final assessment report to the HAKA Bureau on 23.05.2023. The assessment report is an integral part of the decision.

8. The Committee's assessments were as follows:

Quality of instruction	Conforms to the level required
Resources	Conforms to the level required
Sustainability	Conforms to the level required

9. The Council with ten members present discussed these received documents in its session on 5.06.2023 and, based on the assessment report and the information submitted by the higher education institution to the Estonian Education Information System, decided to point out the following strengths, areas for improvement and recommendations, and suggestions for further development regarding EUAS.

9.1. Quality of instruction:

Strengths:

1) The only Software Technologies study programme in English in Estonia in the first cycle of higher education.
2) The studies are practical, as suits professional higher education. The alternation of theoretical and practical learning in the Robotics Software Development study programme should be highlighted, as it allows to immediately put learning into real practice.

Areas for improvement, and recommendations:

1) The learning outcomes of the modules in the Robotics Software Development study programme overlap to some extent, so the acquisition of the same competences has been stipulated as learning objectives in several modules. It is recommended to arrange the learning outcomes of the study programme and the modules in a hierarchical manner so that the learning outcomes covered by several modules are stipulated as the learning outcomes of the study programme, and the learning outcomes of the modules only stipulate the competences achieved by completing a specific module.

Suggestions for further development:

1) To ensure the continuity of the development of the study programme, it is recommended to make the positions of the members of the study programme councils more permanent than one year or semester. Approval of the members of the study programme councils for a longer period would ensure better continuity and the preservation of the culture of development, and development through permanent commitment.
2) It is recommended to involve alumni in the activities of both study programme councils, as this would bring the most direct feedback about what is needed in the workplace to the development of the study programme.
3) In the case of the Software Development and Entrepreneurship study programme, the link between the two focuses of the study programme is not always clear: the description of the Entrepreneurship module does not demonstrate that the module deals with specific problems arising in software companies, and the description of other modules in the study programme does not demonstrate the connection of the modules with the Entrepreneurship module. It is recommended to increasingly integrate entrepreneurship topics in software development subjects in order to ensure better preparation of students to carry out entrepreneurship-related software development projects.
4) As EUAS wants to develop into a university, and considering the goals set in the Research and Development Board's strategy for the higher education institution for 2022–2027, specific and targeted work should be done towards research and development in the IT field in order to achieve the goals established in the strategy. For example, some of the measurable goals could be the volume of the applied research funded by institutions outside the higher education institution, and the number of professional scientific publications.
5) More optional subjects could be planned for the study programmes to encourage partial completion of studies at foreign universities.

9.2. Resources

Strengths:

1) As a great majority of the lecturers works in the entrepreneurship sector, the teaching staff as a whole has a lot of professional experience.
2) EUAS is a strategically important line of business for the parent company and has sufficient funds to support studies related to IT specialities.

Areas for improvement, and recommendations:

1) There is one full-time lecturer in the field of IT at the Estonian Entrepreneurship University of Applied Sciences, who is also the head of the Software Development and Entrepreneurship and the Robotics Software Development study programmes. All other IT lecturers either work part-time or are visiting lecturers. In IT-related educational activities, the higher education institution can primarily be considered as an educational service provider that mediates the competence of practitioners working in other institutions to students. The priority direction in the development of the ICT field must be clearly defined and a top researcher must be recruited keeping in mind the development needs of the field.
2) There is a course titled “Mobile Applications” in the Software Development and Entrepreneurship study programme, and the topics listed include the creation of mobile applications for the iOS platform, the use of xCode and iOS SDK, and the submission of applications to the AppStore platform. The higher education institution has no learning environment to handle all these topics. It is recommended to furnish a classroom with Apple computers to allow teaching the Apple ecosystem topics in the scope described in the study programme.

Suggestions for further development:

1) Workstations in one of the computer classrooms in the Tallinn building are positioned very close to each other and the lecturer does not have sufficient room to comfortably observe and assist the students. It is recommended to change the room layout and/or position workstations so that the lecturer would have better access to the students’ workstations.
2) In order to become an internationally recognised university of applied sciences, the structure of income and costs and, consequently, the structure of educational activities and research and development, should be significantly transformed so that the activities of the Research and Development Board would make up a significantly larger proportion.

9.3. Sustainability

Suggestions for further development:

1) The financial situation and the state of other resources in the Robotics Software Development study programme could be affected by the economic situation and state of AS Clevon. Negotiations with other companies operating in similar fields should be intensified to manage the risks related to dependence of one company.
2) Studies in the Robotics Software Development speciality depend to a large extent on one lecturer / practical training supervisor. It appeared from the interviews that in essence, there are people who would be able to substitute for the given lecturer if necessary. However, these potential substitutes have no prior experience in such work. To reduce the risks, the Committee suggests agreeing with these people on test days, that is, involving them in teaching for a brief period of time. This would give the potential substitutes the opportunity to get a better overview of the teaching process and to assess their own suitability for the work, and ensure a smoother takeover of the teaching work, if necessary.

10. If the assessments in all three assessment areas are "Conforms to the level required", the Assessment Committee shall adopt a decision that the studies conform to the level required, and shall make a proposal to the Minister of Education and Research that the higher education institution be granted the right to conduct studies in the respective study programme group and programme.

11. Based on the above, the Council

DECIDED THE FOLLOWING:

1) The studies conform to the level required;
2) To make a proposal to the Minister of Education and Research to grant the Estonian Entrepreneurship University of Applied Sciences the right to conduct professional higher education studies in the Informatics and Information Technology study programme group.

The decision was adopted with 10 votes in favour. 0 were against.

12. The Estonian Entrepreneurship University of Applied Sciences shall submit to the Assessment Council on 5.06.2024 at the latest an overview of the consideration of the areas of improvement and recommendations pointed out in the Council decision.

13. 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 HAKA Assessment Council within 30 days after he or she became or should have become aware of the decision. The Assessment Council shall send the challenge to the HAKA Appeals Committee, which shall, within

five days of receipt of the challenge, provide a written unbiased opinion to the Assessment Council on the validity of the challenge. The Council shall resolve the challenge within 10 days of its receipt, taking into account the reasoned opinion of the Appeals Committee. If further examination of the challenge is necessary, the Assessment Council may extend the deadline for examining the challenge by up to 30 days. Judicial contestation of a decision is possible within 30 days from the date of service of the decision by filing an appeal with the Tallinn Administrative Court pursuant to the procedure provided for in the Administrative Court Procedure Act.

Hillar Bauman

Secretary of the Council