

**Decision Regarding Assessment of the Agriculture, Forestry  
and Fishery Study Programme Group  
Estonian University of Life Sciences**

**10/03/2017**

**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 Agriculture, Forestry and Fishery study programme group in the first and second cycles of higher education at the Estonian University of Life Sciences in seven years, with a secondary condition**

On the basis of subsections of 12<sup>2</sup> (1) and 10 (4) of the Universities Act, point 3.7.3 of the Statutes of the Estonian Quality Agency for Higher and Vocational Education (hereinafter referred to as 'EKKA') and point 41.1 of the document, 'Quality Assessment of Study Programme Groups in the First and Second Cycles of Higher Education', authorised in point 3.7.1 of the above-mentioned EKKA Statutes; the Quality Assessment Council for Higher Education of EKKA (hereinafter referred to as 'the Council') affirms the following:

1. On 11.11.2015 the Estonian University of Life 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 27.09.2016, approved the following membership of the quality assessment committee for the Agriculture, Forestry and Fishery study programme group in the first and second cycles of higher education at the Estonian University of Life Sciences (hereinafter referred to as 'the Committee'):

<b>Ole Martin Eklo – Chair of the Committee</b>	Professor, The Norwegian Institute of Bioeconomy Research (Norway)
<b>Stephen Hall</b>	Professor Emeritus, University of Lincoln (UK)
<b>Olev Kalda</b>	Deputy Director General, Veterinary and Food Board (Estonia)
<b>Bengt Johan Kriström</b>	Professor, Department of Forest Economics, Swedish University of Agricultural Sciences, Centre for Environmental and Resource Economics (Sweden)
<b>Birgitta Malmfors</b>	Professor, Swedish University of Agricultural Sciences (Sweden)
<b>Paavo Pelkonen</b>	Professor Emeritus, University of Eastern Finland, School of

	Forest Sciences (Finland)
<b>Talvi Pihl</b>	Student, Tallinn University of Technology/University of Tartu (Estonia)

3. The Estonian University of Life Sciences submitted the following programmes for evaluation under this study programme group:
  - Horticulture (BSc)**
  - Horticulture (MSc)**
  - Production and Marketing of Agricultural Products (BSc)**
  - Production and Marketing of Agricultural Products (MSc)**
  - Forestry (BSc)**
  - Forest Management (MSc)**
  - Forest Industry (MSc)**
  - Animal Science (BSc)**
  - Animal Science (MSc)**
  - Aquaculture (MSc)**
4. The Estonian University of Life Sciences submitted a self-evaluation report to the EKKA Bureau on 19.08.2016 and the assessment coordinator forwarded it to the Committee on 13.09.2016.
5. An assessment visit was made to the Estonian University of Life Sciences during 15–17.11.2016.
6. The Committee sent its draft assessment report to the EKKA Bureau on 16.12.2016, EKKA forwarded it to the Estonian University of Life Sciences for its comments on 28.12.2016, and the University delivered its response on 10.01.2017.
7. The Committee submitted its final assessment report to the EKKA Bureau on 16.01.2017. That assessment report is an integral part of the decision, and is available on the EKKA website.
8. The Secretary of the Council forwarded the Committee's final assessment report along with the University's self-evaluation report to the Council members on 21.02.2017.
9. The Council with 8 members present discussed these received documents in its session on 10.03.2017 and, based on the assessment report, decided to point out the following strengths, areas for improvement, and recommendations regarding the Agriculture, Forestry and Fishery study programme group in the first and second cycles of higher education at the Estonian University of Life Sciences.

### **Assessment at the Level of the Study Programme Group**

#### Strengths

- 1) Trends in the development of the study programme group are innovative and interdisciplinary. Various stakeholders have contributed to the study programme development.
- 2) Learning resources exceeding international standards have been made available in laboratories, classrooms and field stations. Sufficient funding and needed support services are made available for field work. Cooperation agreements have been signed with several other universities and enterprises. Successful collaboration exists with stakeholders to find practical training places for students.
- 3) Study programmes are very flexible in terms of scheduling and structure, providing students with a wide range of choices.
- 4) Students are highly motivated and both BSc and MSc graduates are successful in the labour market.

#### Areas for improvement and recommendations

- 1) Feedback from students and lecturers regarding all subjects should be gathered and used in a more systemic manner. Both students and staff consider the current SIS-based feedback system to be ineffective and unreliable.
- 2) Some course reading lists require updating.
- 3) Double marking is currently not applied to student work. For the sake of greater objectivity and transparency of the assessment process, it is recommended that a system be introduced whereby the assignments given and assessments provided by one lecturer are reviewed and reassessed by a different staff member. At times staff feedback on student work is inadequate or not fully informative.
- 4) Final-year BSc students have the choice of submitting a thesis or sitting for a final exam. Given this additional choice, the expected learning outcomes of the study programme as a whole should be reviewed.
- 5) International student mobility should be expanded.
- 6) A larger number of external lecturers should be involved in the teaching process.
- 7) As agricultural specialties are not popular among young people, adequate competition for student places is lacking.
- 8) The academic level of admitted students varies, which, inter alia, leads to relatively high dropout rates. Ways to reduce the dropout rates should be sought.

#### **Assessment at the Study Programme Level**

#### **HORTICULTURE (BSc and MSc), PRODUCTION AND MARKETING OF AGRICULTURAL PRODUCTS (BSc and MSc)**

##### Strengths

- 1) The study programmes are well aligned with changing needs. The University has switched over from a traditional Agronomy programme to a broader programme, which encompasses the entire production chain from land management to marketing. Students' individual needs have been taken into account. Students are encouraged to tailor their studies to their particular areas of interest.
- 2) Upon completion of certain practical courses, students can obtain certificates as accredited soil samplers and plant protection users, which will benefit their future careers.
- 3) The strong practical orientation of study programmes is laudable.
- 4) There is a good balance between theoretical lectures, practical classes, laboratory work, seminars and study trips. Practical classes and seminars are conducted in small groups, allowing lecturers to provide individual feedback to students. The e-modules of subjects complement auditory learning.
- 5) Lecture halls, laboratories and the library are modern and equipped well with computers.
- 6) The study process is closely linked to research, under which topical themes for students' theses are often proposed. The practical training in research methodology needed for thesis writing is gained through participation in the research projects of experienced research teams.
- 7) Alumni are involved in the career counselling of students.
- 8) The age structure of the teaching staff is in good balance. Since the number of doctoral graduates and doctoral students is increasing, new generations of young and motivated lecturers are being ensured.
- 9) Members of the teaching staff are motivated experts in their fields and recognised opinion leaders in society.
- 10) Communication among staff members is exceptionally close and effective.
- 11) Motivated students who come from family farms and nature-oriented specialised classes have high expectations for the study programmes and teaching staff.

- 12) The opportunity for distance learning in the Horticulture MSc programme has attracted very motivated and high-quality students who are returning to the University to study or to acquire an additional degree.
- 13) There is a committee operating at the Horticulture study programme, who discusses each dropout case separately and analyses the reasons for it. The BSc study programmes have tried to reduce dropout rates and motivate the students by adding more specialty subjects and an 'Introduction to the Specialty' course in the first year of study.
- 14) A number of measures have been taken to support students with financial problems, part-time students and those on maternity leave (a tutor system, scholarships, individual study plans, etc.).

#### Areas for improvement and recommendations

- 1) In addition to local needs, the study programmes should also focus more on global issues, in order to increase the competitiveness of its graduates in the European labour market and to better prepare them for possible environmental changes. This would also increase the attractiveness of the programmes for international students.
- 2) It is advisable to hold regular discussions with teaching staff, students, alumni and employers, in order to receive their feedback for study programme development.
- 3) The list of electronic databases should be refreshed and proposals made to the library for any necessary updates.
- 4) Additional funds should be raised for longer study trips.
- 5) Elective courses provide good opportunities for acquiring additional knowledge, but timetables do not always allow them to be used by students.
- 6) In view of current trends in the labour market, the proportions of social sciences and economics should be increased in the programmes.
- 7) Students working full time should be offered distance learning opportunities.
- 8) More use of alumni and social media should be made in order to motivate students and market the study programmes.

#### **FORESTRY (BSc), FOREST MANAGEMENT (MSc), FOREST INDUSTRY (MSc)**

##### Strengths

- 1) The best researchers are involved in the study process of the Forestry and Forest Management programmes. The study programmes are developed in cooperation with leading employers in the forest sector.
- 2) Both national and international cooperation is carried on within the Forest Industry study programme. The Institute of Forestry and Rural Engineering participates in the international Euroforester programme.
- 3) One of the strengths of these study programmes is their very good reputation among all stakeholders (including students, alumni and employers) who are willing to actively contribute to study programme development in the context of a rapidly evolving forest sector.
- 4) Examples of excellence include silviculture research and the Järvelja Training and Experimental Forest Centre, which are used successfully in the teaching and learning process.
- 5) The forestry laboratories are modern and well utilised in both teaching and research.
- 6) The world-class research by the Plant Physiology and Biosphere-Atmosphere Interactions research group is noteworthy.
- 7) Practical work is effectively integrated into many courses. Theory classes are complemented by study trips; classes often take place in nature.
- 8) A large number of Master's theses in forest management are associated with research projects.
- 9) In the study process, the Forest Industry programme uses the same software used by forestry and environmental organisations. The new software enables the use of digital methods in the learning and teaching process.

- 10) The Forestry Industry study programme flexibly employs various forms of study.
- 11) The age structure of staff members in the Forestry and the Forest Management study programmes is in good balance.

#### Areas for improvement and recommendations

- 1) Courses taught by different lecturers should be better correlated (in the Forestry and Forest Management study programmes). To this end, communication among staff members of different departments should be improved.
- 2) In the BSc programme it would be desirable to increase the proportion of specialist modules that support specialisation (in forest management and forest industry).
- 3) In the MSc programmes it is important to find an appropriate balance between the provision of research-based academic education and provision of the necessary professional skills.
- 4) The committee that develops the Forest Industry programme should meet on a regular basis.
- 5) Proficiency in English by the teaching staff in the Forest Industry MSc programme should be improved in order to promote international cooperation and to develop modules taught in English. This could also provide better learning environment for international students.
- 6) It is recommended that, along with local and regional aspects, the study programmes focus more on changing international trends and requirements in the forest sector. Closer collaboration with educational institutions in neighbouring countries should be considered within future improvement activities.
- 7) The laboratory infrastructure for the Forest Industry study programme must be expanded.
- 8) The Forest Industry programme lacks a 'critical mass' of qualified researchers who could apply for larger research projects. Cooperation opportunities for applied research should be offered to forest industry enterprises. It is also necessary to actively seek funding for applied research from both the Estonian and European Union funds and, if possible, to participate in international projects.
- 9) Some syllabi need to be updated and they should incorporate, inter alia, aspects of key areas such as bioeconomy and sustainability. Overlaps among courses should be avoided.
- 10) The role of study programme managers in a continuous development of programmes should be prioritised. Also, students should be involved in the process of study programme development to a greater extent and encouraged to provide comprehensive feedback. Greater value should be placed upon student feedback.
- 11) International staff mobility is low. Lecturers should be encouraged to take advantage of existing mobility opportunities and give lectures at universities abroad.
- 12) Members of the teaching staff do not make sufficient use of existing opportunities for pedagogical training which is needed, inter alia, to improve their communication with students.

#### **ANIMAL SCIENCE (BSc and MSc)**

##### Strengths

- 1) Theory and practice are in good balance in the study programmes.
- 2) Some courses are taught in English, enabling the students to develop their language skills and participate in international mobility programmes.
- 3) Good cooperation is carried out with farms and enterprises that provide practical training places for students. The learning infrastructure is of high quality.
- 4) Students are involved in research projects while writing their theses. Research projects are also prepared within other courses.
- 5) The majority of lecturers have doctoral degrees. Courses are conducted by competent lecturers from different institutes. Practitioners are involved in the teaching process.

- 6) Members of the teaching staff are actively engaged as experts in the work of local and international professional associations and provide their expert assessments to national authorities as needed.

#### Areas for improvement and recommendations

- 1) Some course overlaps exist which should be reviewed.
- 2) The student assessment system should be more clearly linked to the learning outcomes to be achieved.
- 3) It should be ensured that all learning materials be made available to students in the Study Information System (SIS).
- 4) A poor microclimate exists in Zoomedicum (lack of forced ventilation); funds should be sought to remedy this.
- 5) Given current trends, there is an urgent need to find a solution for the issue of ensuring the economic sustainability of the Märja Dairy Research Farm.
- 6) The proportion of e-learning is too small in the study programme. Modern teaching methods are underutilised in the teaching process.
- 7) At times the students are not aware of what is expected from them in the learning process. Students' essays and reports presented to the Committee seemed to consist essentially of reviews of the learning materials, which does not support development of the students' critical thinking. It is recommended that the assessment criteria for student work be specified.
- 8) It is complicating for the staff members to take free semesters, since many courses are only taught by one professor.
- 9) Students would like to have even more practical experience in the farms during their studies, and to participate in professional conferences and other events more often.

### **AQUACULTURE (MSc)**

#### Strengths

- 1) This is a solidly research-based study programme. The research projects support practical work.
- 2) The genetics laboratory is well equipped. The library and lecture rooms are of good quality. A broad selection of scientific literature is available to students and lecturers.
- 3) Good cooperation exists with aquaculture enterprises, ministries, professional associations and practical training facilities.
- 4) New aquaculture textbooks in Estonian have been published lately.
- 5) Members of the teaching staff are highly qualified. The number of high-quality publications is steadily increasing.
- 6) The Department of Aquaculture enjoys good cooperation ties with many universities abroad.

#### Areas for improvement and recommendations

- 1) A system should be developed to gather feedback from employers and alumni.
- 2) Aquaculture classrooms need to be modernised.
- 3) Innovative teaching methods and learning materials should be used to a greater extent. Lecturers should be motivated to use more digital tools in the teaching process. Also, more e-courses should be offered and the e-learning environments further developed.
- 4) More lecturers and practitioners from outside the University should be involved in the teaching process.
- 5) All MSc students should be involved in research projects.
- 6) The age structure of the teaching staff is not in balance. There is inadequate competition when selecting the teaching staff.
- 7) International staff mobility is low. Members of the teaching staff should be encouraged to make full use of the opportunities available for international mobility.

- 8) Lecturers should be more involved in research. Workloads for both researchers and lecturers should be in balance.
- 9) Younger members of the teaching staff should be motivated to complete their doctoral studies in a timely manner.
- 10) The number of students is small. The number of applicants is also decreasing. More information about the study programme should be provided to potential students.
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 if the University eliminates the following shortcoming:
  - According to clause 6 (3) of the Government of the Republic Regulation, 'Standard of Higher Education', *the objectives and learning outcomes of a study programme shall be equal and comparable with the learning outcomes of the cycles of higher education level described in points 1.1 and 3.1 of Annex 1 to the Standard of Higher Education (including a student's skill to critically evaluate his or her own activities when solving problems and/or research questions of the field of study)*. Subsection 6 (4) of the 'Standard of Higher Education' prescribes that *the objectives and learning outcomes of a study programme shall be formulated in a way that they provide a basis for evaluation of the knowledge and skills of graduates of that study programme*. According to subsection 6 (2) of the 'Standard of Higher Education' *study programmes and the conducting of studies shall be consistent with, inter alia, national quality requirements and agreements*. According to point 5.3.7 of the regulation, 'Quality Assessment of Study Programme Groups in the First and Second Cycles of Higher Education', adopted pursuant to subsection 6 (4) of the Universities Act and point 3.7.1 of the Statutes of the Estonian Quality Agency for Higher and Vocational Education, *assessment of learning outcomes must be appropriate, transparent and objective, and support the development of learners*. In the Animal Science study programmes, the assessment system is not sufficiently linked to the expected learning outcomes, and the assessment criteria must be specified. At times the students are not aware of what is expected from them in the learning process. Students' essays and reports presented to the Committee seemed to consist essentially of reviews of the learning materials, which does not support development of the students' critical thinking.
  - According to point 5.1.5 of the regulation, 'Quality Assessment of Study Programme Groups in the First and Second Cycles of Higher Education', *the study programme development must take into account feedback from students, employers, alumni and other stakeholders*. Student and staff feedback is not collected or taken into account for all subjects in a sufficiently systemic manner. Both students and staff consider the current SIS-based feedback system to be ineffective and unreliable.
  - Point 5.3.3 of the regulation, 'Quality Assessment of Study Programme Groups in the First and Second Cycles of Higher Education', prescribes that *teaching methods and tools used in teaching are modern, effective and support the development of digital culture*. Not all lecturers in the Aquaculture study programme make sufficient use of innovative teaching methods, learning materials or digital tools in the teaching process.

12. According to clause 53 (1) 2) of the Administrative Procedure Act, *a secondary condition of an administrative act is an additional duty related to the principal regulation of the administrative act* and, according to clause 53 (1) 3), it is also *a supplementary condition for the creation of a right arising from the principal regulation of the administrative act*. Clauses 53 (2) 2) and 3) establish that *a secondary condition may be imposed on an administrative act if the administrative act cannot be issued without the secondary condition, or if issue of the administrative act must be resolved on the basis of an administrative right of discretion*. The Council found that, without a secondary condition, the next quality assessment of the study programme group should be conducted in less than seven years, and therefore, on the basis of points 41.1 and 42 of the document, 'Quality Assessment of Study Programme Groups in the First and Second Cycles of Higher Education', the Council

#### DECIDED

**to approve the assessment report and to conduct the next quality assessment of the Agriculture, Forestry and Fishery study programme group in the first and second cycles of higher education at the Estonian University of Life Sciences in seven years with the following secondary condition:**

No later than 10.03.2019, the Estonian University of Life Sciences shall submit a progress report in English to the Council on eliminating the shortcomings referred to in point 11 of this document. Members of the assessment committee shall be involved in assessing compliance with the secondary condition.

The decision was adopted by 8 votes in favour. Against 0.

The Council decided to highlight the following strengths as good practices:

- 1) With regard to the Horticulture and the Production and Marketing of Agricultural Products programmes:
    - The study programmes are well aligned with changing needs. The University has switched over from a traditional Agronomy programme to a broader programme, which encompasses the entire production chain from land management to marketing. Students' individual needs have been taken into account.
    - The study process is closely linked to research, under which topical themes for students' theses are often proposed. The practical training in research methodology needed for thesis writing is gained through participation in the research projects of experienced research teams.
    - Communication among staff members is exceptionally close and effective.
    - There is a committee operating at the Horticulture study programme, who discusses each dropout case separately and analyses the reasons for it.
    - A number of measures have been taken to support students with financial problems, part-time students and those on maternity leave (a tutor system, scholarships, individual study plans, etc.).
  - 2) With regard to the Forestry, the Forest Management and the Forest Industry study programmes:
    - Examples of excellence include silviculture research and the Järvelja Training and Experimental Forest Centre, which are used successfully in the study process.
    - Practical work is effectively integrated into many courses. Theoretical classes are complemented by study trips; classes often take place in nature.
13. If the Estonian University of Life Sciences does not comply with the secondary condition by the due date, the Council will repeal this assessment decision and set a new date for a quality assessment of the study programme group, or establish a new secondary condition.



14. The Council proposes that the Estonian University of Life Sciences will submit an action plan to EKKA with regard to the other areas for improvement and recommendations pointed out in the report no later than 10.03.2019.
15. A person who finds that his or her rights have been violated or his or her freedoms 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**