

Decision Regarding the Assessment of the Life Sciences Study Programme Group

University of Tartu

15/03/2016

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

On the basis of subsections 12² (1) and 10 (4) of the Universities Act, point 3.7.3 of the Statutes of the Estonian Quality Agency for Higher Education and VET (hereinafter referred to as 'EKKA') and point 41 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 3.12.2014 the University of Tartu and EKKA agreed upon a time frame to conduct the quality assessment of the study programme group.
2. The Director of EKKA, by her order on 25.09.2015, approved the following membership of the quality assessment committee for the Life Sciences and Environmental Protection study programme groups in the first and second cycles of higher education at the University of Tartu and the Estonian University of Life Sciences (hereinafter referred to as 'the Committee'):

| | |
|--|--|
| Laurent Counillon – Chair | Professor, University of Nice-Sophia Antipolis (France) |
| Olav Aarna | Advisor, Estonian Qualifications Authority (Estonia) |
| Dietwald Gruehn | Professor, TU Dortmund University (Germany) |
| Kari Keinänen | Professor, University of Helsinki (Finland) |
| Henricus Balthasar Joseph Leemans | Professor, Wageningen University (Netherlands) |
| Ana Maria Pelacho Aja | Professor, University of Lleida (Spain) |
| Adrian Stan | Student, The Victor Babes University of Medicine and Pharmacy, Timisoara (Romania) |

3. The University of Tartu submitted the following programmes for evaluation under this study programme group:

Biology (BSc)

Ecology and Biodiversity Conservation (BSc)
Gene Technology (BSc)
Biology (MSc)
Biomedicine (MSc)
Ecology and Biodiversity Conservation (MSc)
Gene Technology (MSc)

4. The University of Tartu submitted a self-evaluation report to the EKKA Bureau on 24.09.2015 and the assessment coordinator forwarded it to the Committee on 30.09.2015.
5. An assessment visit was made to the University of Tartu during 3–4.12.2015.
6. The Committee sent its draft assessment report to the EKKA Bureau on 4.02.2016, EKKA forwarded it to the University of Tartu for its comments on 5.02.2016, and the University delivered its response on 16.02.2016.
7. The Committee submitted its final assessment report to the EKKA Bureau on 7.03.2016. 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 7.03.2016.
9. The Council with 8 members present discussed these received documents in its session on 15.03.2016 and, based on the assessment report, decided to point out the following strengths, areas for improvement, and recommendations regarding the Life Sciences study programme group in the first and second cycles of higher education at the University of Tartu.

Assessment at the Level of Study Programme Group

Strengths

- Overall, the study programmes are of high quality, their content and implementation consistent with the planned learning outcomes. The individual components of a programme form a coherent whole from the scientific perspective.
- The infrastructure is excellent; new and/or fully renovated buildings offer a modern teaching and learning environment with up-to-date resources for teaching as well as practical and laboratory work. Having been given proper training, students are allowed to use these infrastructure resources freely. Such trust increases the students' motivation and autonomy.
- Assessments of learning outcomes are objective and transparent.
- All the master's theses are based on experimental research and their conclusions are sometimes published in scientific journals.
- Teaching staff has a solid academic background and many staff members are involved in intensive research activities in fields relevant to the study programmes. Some staff members stand out at the international level as well.
- Openness, a healthy critical attitude and an excellent command of English demonstrated by both students and alumni serve as evidence of a good university education received.

Areas for improvement and recommendations

- Due mostly to individual and historical reasons, all study programmes are split into multiple courses with maximums of 4 credits each. For the sake of consistency and comprehensiveness of the programmes, the University should consider combining subjects into larger integrated specialised courses.

- The study programmes, which are currently oriented firmly towards academic careers, should also be aware of other labour market needs. An entrepreneurship course combined with practical training in an enterprise as offered within the Gene Technology programme is a good example, but unfortunately the number of available student places is quite limited.
- An international dimension for the study programmes has not yet been sufficiently developed. Both inward and outward student mobility should be strongly encouraged – for example, to deliver more courses in English and to facilitate student participation in the Erasmus programme activities outside of Estonia.
- International student mobility is currently very low. At present, for example, students in Biomedicine and Gene Technology programmes are asked to find programmes at foreign universities where courses would exactly match those of the corresponding year at the University of Tartu. Since this is practically impossible, it would also make it impossible for students to graduate within the standard period of study. Student participation in external mobility should not become an obstacle to completing studies within the standard time frame nor an obstacle to transferring ECTS credits.
- The funding for practical classes is not sufficient; such costs are at least partly covered by research funding.
- Development of the teaching skills of teaching staff has not been given adequate attention. Interactive and problem-based teaching methods are not sufficiently emphasised. The teaching and learning process should be made more student-centred, utilising a diverse range of teaching methods, paying more attention to developing students' generic skills and increasing the proportion of practical work. It is recommended that the teaching staff and doctoral students, to improve their teaching skills, be more proactive in taking advantage of pedagogical courses provided by the University.

Assessment at the Study Programme Level

Biology (BSc, MSc)

Strengths

- Feedback obtained from students is publicly available to students.
- Students are satisfied with the teaching and learning process. When problems occur, students can directly approach the relevant professor.

Areas for improvement and recommendations

- The objectives of the BSc programme are not linked to the labour market, but primarily aim at preparing students for studies in the MSc programme. These objectives should be expanded to reflect labour market needs as well. There are no employment statistics for the graduates of these programmes.
- It should be specified how individual courses provide support towards the achievement of the overall learning outcomes of the study programmes.
- The popularity of BSc and MSc programmes in Biology has diminished over time and therefore there are not enough candidates for student places. The study programmes need systematic marketing.
- Syllabi should be presented in a more uniform and clear format to make it easier for students to organise their work. Also, the syllabi should clearly indicate the relative weights of different accomplishments towards the final marks.
- Bachelor's theses should be based upon experimental work to a greater extent. At present some Bachelor's theses are based on literature only.

- There is an occasional shortage of some specific teaching resources. The existence of laboratory equipment or supplies needed in both teaching and practical classes should be ensured.
- The Moodle environment should be used in a more regular manner.
- Development of students' oral and social skills (especially in the BSc programme) needs more attention.
- Dropout rates are high for both the BSc and MSc programmes, partly due to poor student performance. Graduation rates within standard periods of study are low in the BSc programme. It is possible to promote on-time graduation and reduce the number of dropouts by making improvements to both the teaching process and the organisation of studies.
- More visiting lecturers and researchers from both Estonia and abroad should be involved in the teaching process.
- Students are of the opinion that they do not have enough time to write their theses and that there are problems in registering for the practical classes.

Ecology and Biodiversity Conservation (BSc, MSc)

Strengths

- Practical, research and theoretical studies are well balanced in these study programmes.
- Teaching staff are highly qualified and their academic research is also reflected in their teaching. The staff's international research projects and exchange programmes offer students good opportunities to broaden their horizons.
- International lecturers offer students additional professional insights through their international examples and promote the conduct of studies in English.
- Students have ample opportunities to provide feedback on courses and lectures through both the Study Information System and direct contacts with lecturers. Students' feedback and concerns are taken seriously.

Areas for improvement and recommendations

- It is recommended that the University, in collaboration with employers, develop a common vision embracing the whole field of Biology and Biodiversity Conservation, taking into consideration labour market needs as well. Such vision could help to better design the study programmes and specialisations within them, as well as to merge courses.
- Current programmes strongly focus on nature conservation in Estonia. Since this field is mainly covered by EU legislation (e.g. Natura 2000) and there is plenty to learn from the experiences of foreign countries in the fields of nature conservation and nature restoration, it would be useful to add some international dimension to the programmes.
- Since the majority of the teaching staff are active researchers, a balance between research and teaching could be of concern.
- The study programmes should be better marketed among potential students, to help fill all available student places.
- Dropout rates are relatively high. Students should be supported with respect to completing their studies; for example, by offering them opportunities for scholarships within the framework of research projects.
- Participation in international projects (e.g. Horizon 2020) should be emphasised and student mobility should be promoted.

Gene Technology (BSc, MSc), Biomedicine (MSc)

Strengths

- The learning environment is stimulating for students – internationally recognised high-quality research is carried out within the framework of study programmes, there are top-quality researchers among teaching staff, and excellent teaching resources and infrastructures are present.
- High-quality research at the University of Tartu facilitates students' integration into active research. Students are aware of the excellent reputation of their study programmes. Due to fierce competition for admission, these programmes are filled with capable and motivated students in spite of a demographic decline.
- These programmes are managed in a professional manner, which is also reflected by the candid and comprehensive self-evaluation report.
- The Gene Technology and Biomedicine programmes make active use of the Moodle environment as a supportive tool for learning and teaching.

Areas for improvement and recommendations

- The Gene Technology and Biomedicine programmes should be differentiated more clearly. It is recommended that the University carry out its intention to include more courses in the Biomedicine programme, taken from the Faculty of Medicine.
 - The quantity of instruction given in English should be significantly increased.
 - Course descriptions should include lists of recommended literature.
 - Reasons are unclear for the recent poor performance by students in the Biomedicine programme along with their declining marks, and this needs a thorough analysis.
 - Student assessment is carried out mostly in the form of traditional examinations. For the sake of flexibility in the teaching and learning process, alternative assessment methods should be considered.
 - The number of practical training places outside the university is very limited and available places are in great demand. Students should be provided with more practical training opportunities in enterprises.
 - Distribution of workloads among teaching staff is not clearly specified.
 - Quantitative information on the employment rates of graduates is not collected.
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 years, or in less than seven 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 programme, the teaching conducted under this programme, and development activities regarding teaching and learning conform to the requirements.
12. On the basis of the foregoing, the Council

DECIDED

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

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

13. The Bureau of EKKA will coordinate a date for the next quality assessment of the study programme group with the University of Tartu no later than 15.06.2022.
14. The Council proposes that the University of Tartu will submit an action plan to EKKA with regard to the areas for improvement and recommendations pointed out in the report no later than 15.03.2018.
15. 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