Decision Regarding the Assessment of the Life Sciences Study Programme Group

Tallinn University of Technology

18/06/2015

The Quality Assessment Council for Higher Education of the Estonian Quality Agency for Higher and Vocational Education decided to approve the assessment 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 Tallinn University of Technology in seven years.

Tallinn University of Technology submitted the following study programmes for evaluation:

- Gene Technology BSc
- Gene Technology MSc

Assessment Committee

Laurent Counillon (Chair)	University Nice-Sophia Antipolis (France)
Olav Aarna	Estonian Qualifications Authority (Estonia)
Maris Klavins	University of Latvia (Latvia)
Kari Keinänen	University of Helsinki (Finland)
Rik Leemans	Wageningen University (Netherlands)
Romanus Lenz	Nürtingen University of Applied Sciences (Germany)
Adrian Stan	Timisoara Dental Students Association, Student (Romania)

The Committee's Comments on the Study Programme Group

Strengths

- *Up-to-date facilities and a large campus provide a wide variety of options.*
- *There are strong research groups and a world-class research infrastructure in the study programme group.*
- *Solid study programmes are consistent with international standards.*
- *The department has a strategic vision for further development of the study programmes, including plans for developing new areas and recruiting additional teaching staff.*
- *The teaching process is supported by high-quality research (e.g. in molecular neurobiology and plant biology) which provides interesting research topics, inspires students and allows them to develop their research skills early on.*
- *The teaching staff is engaged in high-quality research and their expertise is diverse. The study programmes have remained popular among prospective students despite the downward demographic trends.*
- *The students are motivated and their academic level is high.*
- *The students actively participate in mobility programmes.*

Areas for improvement and recommendations

- *In the current research-driven culture, the teaching staff may lack motivation to develop their teaching methods and skills, but these are essential for the long-term success of the study programmes. It is necessary to create incentives for the staff encouraging them to develop their pedagogical skills (premiums, recruitment policies, etc).*
- *The MSc programme is based on the interests of University research groups, which ensures the integration of teaching and research, but may limit students' prospects for finding work outside the academic world. In collaboration with biotechnology companies, it is necessary to develop the courses for both BSc and MSc studies which would increase graduates' opportunities to find employment outside academia.*
- *The study programmes have little room for elective courses inhibiting students from developing their skills in individual ways and in ways that would meet the different needs of the job market. Therefore more room for elective courses should be reserved in both BSc and MSc programmes.*
- *Funds for conducting practical laboratory works are insufficient as they depend too much on the research funds of specific research groups. Funds should be allocated by the University to cover the costs of practical laboratory works.*
- *The Assessment Committee strongly supports the initiative to add more emphasis to bioinformatics and systems biology in the MSc programme.*
- *Despite the international research and job markets in the field of gene technology, the programme is taught only in Estonian. The MSc programme should be taught in English as well to support internationalization and involve international students in the programme.*

- *Students' practical courses and research projects are carried out in the same laboratory chosen in the beginning of their studies, which may narrow the scope of their studies. Rotation of students between laboratories would allow them to be exposed to different research environments and experimental approaches.*
- *According to students' feedback their motivation and interest in chemistry studies are inadequate. It is necessary to explore different possibilities to increase the popularity of chemistry courses, e.g. by revising the teaching methods and by emphasizing the role of chemistry in subsequent biology studies.*
- *Although collaboration with the "outside world" exists at many levels, including with biotechnology companies, it is not visible to the students. Students, alumni and biotechnology companies should be more actively involved in the development of the study programmes. This will also help to improve the employment prospects for graduates.*
- *Due to low response rates, an optimal use of student feedback in the continuous development of the study programmes is impossible. Students' motivation to give feedback should be increased, more effective ways to collect feedback should be studied and the impacts of the feedback should be made more visible to students.*

Further information:

Assessment Report

Minutes of the Session of the Quality Assessment Council (in Estonian)