

Decision Regarding the Assessment of the Engineering, Manufacturing and Technology Study Programme Group

University of Tartu

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 Engineering, Manufacturing and Technology study programme group in the first and second cycles of higher education at the University of Tartu in seven years.

The University of Tartu submitted the following study programme for evaluation:

- Applied Measurement Science MSc

Assessment Committee

Paul Rullmann (Chair)	Chairman of the WTR, the Scientific Technical Council of SURF (Netherlands)
Sigurdur Brynjolfsson	University of Iceland (Iceland)
Johan Driesen	Katholieke Universiteit Leuven (Belgium)
Sven Anders Flodström	President of The Royal Institute of Technology (Sweden)
Karmen Kütt	Delft University of Technology, Student (Netherlands)
Eero Puolanne	University of Helsinki (Sweden)
Jan-Eric Ståhl	Lund University (Sweden)
Madis Võõras	Enterprise Estonia, Innovation Division, Manager (Estonia)

The Committee's Comments on the Study Programme Group

Strengths

- *The teaching staff are enthusiastic and their research is of high quality.*

- *Laboratories and other infrastructure are at a top level.*
- *There is a close communication and good collaboration between the teaching staff and students.*
- *Preparation courses are conducted for students in the beginning of studies to ensure that the students admitted from different bachelor degree programmes start their studies on the same level.*
- *Topics of master's theses have strong scientific orientation and potential for scientific publication.*
- *Internships are relevant to the programme and closely connected with research activities.*
- *The study programme is fully taught in English, the student group is international.*
- *Representatives of industrial laboratories are very pleased with graduates' skills in various areas.*
- *The study programme has an excellent international cooperation network.*

Areas for improvement and recommendations

- *Given the market needs, student admissions should be increased. This will require more (Erasmus Mundus) scholarships and also more teachers.*
- *The study programme should be better promoted to companies, currently the programme is not sufficiently known.*
- *Additional funding for research activities should be obtained, including contract-based funding from companies. It is also recommended that the University collaborate with other organizations and collectively apply for the SME incentive grants and ERA-net funding within the framework of the Horizon 2020 programme.*
- *The name of the study programme could be reconsidered, e.g. "Analytic Measurement Science" would better describe the current content.*
- *Learning outcomes should be specified and the so-called soft skills as well as entrepreneurship and leadership should be better represented in the study programme.*
- *The use of MOOCs and online modules should become an integrated part of teaching and learning.*
- *A summer school option should be offered to all students, not only to Erasmus Mundus students.*
- *A broader collaboration with international companies and other application fields such as environmental sciences should be considered.*
- *It is recommended that the University keep in touch with alumni in a constant and structured way.*
- *The Erasmus Mundus programme should be used as an opportunity to increase international recognition.*
- *Five to seven small-scale parallel courses could be combined into bigger blocks to optimize students' workload at the end of a semester.*
- *To better promote the study programme outside the University, social media and the University online newsletter could be utilized more efficiently.*
- *There is a lack of textbooks in some areas; this needs to be addressed.*
- *Better laboratories are needed for performing physical measurements. It is recommended that the possibility of utilizing the laboratories of the Institute of Physics be looked into.*

- *It is recommended that the teaching staff agree on a common approach to teaching methodologies and didactics.*
- *It is recommended that regular development interviews be conducted with the staff.*

For further information:

[Assessment Report](#)

[Minutes of the Session of the Quality Assessment Council](#) (in Estonian)