Names of the programmes

Mathematics (612G10003), Mathematics (612G10005), Technomathematics (612G16001) Technomathematics (621G16001)

Four above mentioned Bachelor and Master programmes were evaluated during the site visits in the period of 13th -17th of October, 2014 at Klaipėda University, Šiauliai University and Vilnius Gediminas Technical University. The visits incorporated all required meetings at all universities with different academic and public groups, including the administrative staff of universities and the Faculties of Natural Science, staff responsible for preparing the self-assessment documents, teaching staff, students of the second, third and fourth years of Bachelor study, as well as students of the first and second years of Master study, graduates, and social partners. The expert group examined presented Diploma and Master Theses. The evaluation group also inspected various support services (classrooms, laboratories, libraries, computer facilities).

The overall impression of all four programmes is that staff is enthusiastic about the programmes and continuing to develop the programmes. The quality of programmes is very heterogeneous. Recommendations of the previous external assessment helped to improve that programmes in many aspects: programme aims and learning outcomes are publicly accessible, allocation of credits meets the legal requirements except the internship for one programme, facilities and learning resources, etc. There exists an evident correlation between research activities including international cooperation, facilities and learning resources, well developed partnership with social partners and the quality of programmes.

Many students interviewed during the visits took part in the discussion in a very active way, and appeared open minded, critical, and capable, which is the mark of a successful academic training. However, some of the students took part in a somewhat passive way.

For all programmes, the social partners confirmed that they could trust the competences of the students they employed and may help to improve in curriculum design according to the labour market needs, especially of certain regions where universities are located.

The programmes aims are consistent with learning outcomes that are appropriate to the Bachelor and Master studies levels respectively. The aims take mainly into account both the requirements of global and EU labour market and local needs in Lithuania. In some cases these ones might be improved. The learning outcomes assure that the graduates are flexible and can proceed with various specialisation paths in their careers within the industry or academic framework. The Curriculum and Study programmes are being constantly improved taking into consideration feedback from social partners and students. The curricula design meets legal requirements, except in one case where the internship does not exist; the contents and teaching methods are appropriate for the achievement of intended learning outcomes. The teaching staff are heterogeneous both academically and by virtue of professional experience outside academia for all Departments. Reducing of teaching workload is suggested to intensify research activities including more scientific publications and international cooperation to make better influence in curriculum design according to labour market needs, to achieve contemporary teaching methods and better promotion of universities.

The teaching staff are engaged mainly in research relevant to the subjects being taught. In many cases there is a clear link between teaching responsibilities and research output. The Departments have primary research equipment. The students are given access to all research laboratories, computer rooms, libraries and other resources important for their studies. The teaching and learning equipment is generally satisfactory to very good.

The student practice, where is organized, is adequate and is mainly related to the achievement of problem solving, teamwork and other competencies. It also helps students to find a job. However, it has mentioned by social partners and the review team that they encourage the Departments to involve social partners in the diploma and master thesis advising. Admission requirements and organization of study process are well prepared. It needs more promotion outside the universities to stop decreasing number of students in these study programmes. The responsibilities of the programme management are clearly defined at all levels. Semester-based evaluation and analysis of the examination results and academic year-based analysis of student's opinions are significant parts of the quality monitoring and management system. Students are satisfied almost in all respects (teaching staff, equipment, etc.) but, they expect a better feedback of their assessments either in their workload or something else; it depends on a university. The well-established network of contacts with employers and graduates, where it exists, enables continuous tuning of the study programmes according to the changing requirements of the local labour market.

In conclusion, all study programmes meet more or less educational and specific national and international needs. Some of them are sustainable. All these programmes with slight or heavy redesigns are important for regional needs. Some of them are already compatible with national and international labour market needs. It is the most important that the programmes keep its high education standard, are sustainable and meet national and international quality requirements.