



Summary

“A Smooth Transit from Master to Doctoral Education”
HU-0002-M4/IP

Partner institutes:

1. **Department of Organic Chemistry , University of Szeged**
6720-Szeged, Dóm tér. 8.

Contact person: Dr. Zsigmond Ágnes, DSc, ass. prof.

Tel: +36 - 62/ 544-512

azsig@chem.u-szeged.hu

2. **Department of Physical Chemistry, University of Debrecen**
4032-Debrecen, Egyetem tér 1.

Contact person: Prof. Joó Ferenc, member of HAS

Tel: +36 – 52- 512 900 / 22 382

joo.ferenc@science.unideb.hu

3. **Department of Chemistry, University of Tromsø**

9037 Tromsø, Hansine Hansens veg 18

Postal address: Postbok 6050 Langnes, 9037 Tromsø

Contact person: Dr.Jörn H. Hansen, PhD, ass. prof.

Tel: + 47 - 77 / 64 55 02

jorn.h.hansen@uit.no



Project description:

The aim of this project is a mutual, interdisciplinary upgrading of education, which makes complete the present education programmes of the partner institutes. This upgrading is available for all of the students – not only the chemistry major, but biology, environmental majors - who want to collect a different way of mentality and thinking about the innovative, industrial applications.

This way of thinking is going to be developed by an intensive modular Summer School at the Norwegian partner institute, however the preparation is going to happen in both countries. The whole time period of the project is **01. 09. 2014 – 01. 02. 2016**, which can be divided in three different parts: **Preparation phase, Summer School, Evaluation phase**. The time period of each phase is 6 months separately.

1. Preparation phase: 01. 09. 2014. – 01. 03. 2015.

The most important task of the preparation phase was to collect and to compare the specific features of the educational system of the partner institutes (especially the Hungarian ones) not only on the field of chemistry, but on some other scientific fields, which can be connected to the chemistry. We have made this comparison, in order to determine the joint program, which can make complete the educational system of the partner institutes. During this comparison we have also determined the range of the candidates, who are eligible to participate on this Summer School. Beside the chemistry majored BSc and MSc students, other connected science, like biology, bionics and environmental science majored students were eligible to apply for the programme.

During the Summer School several lectures were planned by different lecturers, who are the professors of the three institutes and some other researchers, having industrial background. Lecturers with industrial background were able to share their experience, collected on industrial R and D projects.

In the preparation phase two workshops were organized, the first one in Szeged, the second one in Tromsø. During these two meetings the educational systems were compared and the



topics of the Summer School were determined. We have decided that during the Summer School, beside the lectures, some practical experimental work would be performed.

Expected results of the preparatory phase was to have a well established program of the Summer School, based on the comparison of the partner's educational systems.

2. Summer School: 01. 03. 2015. - 01. 09. 2015.

Having the program of Summer School in the preparation phase we have started to organize the course itself. The Summer School was planned to be 3 weeks long, with the participation of 17 students, 10 from Szeged, 5 from Debrecen and 2 from Tromsø. During the organization we had to face with several problems: some of them administrative, for example what kind of contract the students suppose to have to get the scholarship, some of them financial, the money provided for the Summer School was hardly enough to arrange the accommodation and the airplane tickets...etc

However finally we had everything, the well established program for the lectures and for the practical courses, the participating students and lecturers, the accommodation and the air plane tickets.

The Summer School was organized between **07. 07. 2015 – 26. 07. 2015**. in those way that the participating Hungarian students were in Tromsø during all of this period, but the teachers from the two Hungarian institute were changed each other. The first 10 day teachers from Szeged were taking part giving the lectures and controlling the practical courses and the second part was directed by professors from Debrecen. The project manager in Tromsø and the owner of the project idea was Krisztián Bogár, who was giving large number of lectures with industrial examples and played an important role in the practical courses, as well. He also had a significant contribution to establish the program and to organize the laboratory courses, as well. He was our contact person from the beginning of the project and he supported us to during the whole programme with practical information, and ensured the use of the university facilities and infrastructures.

Unfortunately he is not belongs to the University of Tromsø any more, but we were so lucky, that the other participating lecturer, Jörn Hansen could take his place in the project.



The Summer School was closed with the evaluation of the student performance with oral examination and professional report. The professional report is a tool to summarise the knowledge and competence the students gained as a result of the programme. It also provides additional information to the organization of similar programmes in the future.

After the Summer School a survey was conducted to learn about the opinion and impressions of the students, and to determine the weaknesses and strengths of the programme.

3. Evaluation phase 01. 09. 2015. – 01.02. 2016.

We are here now in the evaluation phase. The evaluation has already started still in Summer time, since most of the students has prepared his/her evaluation sheets and progress reports. This meeting is the main evaluation meeting starting the students's evaluation.

We thank all of the participants for the hard work.