Polymer Technology

The Nordic Master in Polymer Technology is a double degree programme developed jointly by The Nordic Five Tech network (N5T). The programme is strongly based on mathematics and science, and on the research and teaching excellence of participating universities which are Royal Institute of Technology in Stockholm (KTH), Technical University of Denmark (DTU), Aalto University, Chalmers University of Technology and Norwegian University of Science and Technology (NTNU).

The students will, in excess to basic skills in polymer technology, get a broader understanding of the research in this field through the studies in two different universities. The programme includes one year in one of the partner universities and the other year in other partner university.

Study programme

Polymer technology is essential for technical progress in large number of areas and it plays a key role in meeting the challenges in the areas of health, energy, and sustainability. The education is based on the research and teaching excellence of participating universities. The students will, in excess to basic skills in polymer technology, get a broader understanding of the research in this field through the studies in two different universities. The programme includes the first year in one partner university, and the second year in another partner university.

Online application is open 16 Oct 2017 - 15 Jan 2018. Please find more info at program's KTH website

Structure of studies

The Polymer Technology is a two-year programme of full-time studies with 120 ECTS credit points. The programme is structured in two parts:

1. The first year studies are divided into core courses (25-35 ECTS) and key competence (25-35 ECTS). The core courses cover the areas of polymer chemistry and polymer physics.

2. During the second year you specialize in one of the five subjects: biomaterials science, advanced materials, polymer engineering, macromolecular materials, and industrial processes. Each of the subjects defines a study track.

It is required that you start at one of the partner universities for part 1 and finish your studies at another university for part 2.

Year 1 at Aalto

The first year studies at Aalto University include courses both in Polymer Technology and in Polymeric Biomaterials, in total 60 ECTS credits. At first the student learns polymer physics, synthesis and properties both in theory and practice. The studies include also surface and colloid chemistry and it is possible to take courses in biopolymers and various communication skills. In the first year studies of Polymeric Biomaterials the student has the possibility to choose from a variety of courses (e.g. polymerization engineering, forest biorefineries and nanotechnology in forest biomaterials) and it is possible to study also instrumental analysis in surface, polymer and nanoscience. These studies prepare students for the tracks of Polymer Technology (KTH) and Polymer Engineering (DTU).

Year 2 at Aalto (after completing the first year in another partner university)

In the second year studies at Aalto the student should study a total of 30 ECTS from the courses belonging to the field of the specialization track Biomaterials Science. The spring semester is allocated for the 30 ECTS Master's THESIS. The second year specialization thus requires the student to obtain a total of 60 ECTS.