

New Study Program at Linköping University: Graphic Design & Communication

Tommie Nyström

The University of Linköping, Sweden, has introduced a highly innovative study program called "graphic design and communication" which is characterized by an interdisciplinary approach to its topic and emphasizes international cooperation. This article briefly describes the latest changes in the Swedish system of higher education, followed by the rationale, the development process and the structure of the new program.

The Swedish system of higher education

From January 2007 onward, Swedish higher education is, in harmony with the Bologna process, conducted at three levels: basic, advanced and research.

Basic level

Bachelor's degree after completion of a three-year bachelor's program (180 ECTS).

Advanced level

Two-year Master's degree, after completion of a two-year master's program (120 ECTS)
One-year Master's degree after completion of a one year master's program (60 ECTS)

Research level

Doctor's degree, four years, including coursework and dissertation.
Licentiate degree, two years, including coursework and a thesis.

With rare exceptions, the government subsidizes all tuition fees in higher education in Sweden. This applies to foreign as well as Swedish students. The student pays living expenses and student union fees.

Linköping University (LiU)

Linköping University is renowned for its innovative educational spirit and its longstanding tradition of cross-disciplinary studies and research. The University has its educational roots in the late 1960s. Full university status was acquired in 1975. Today LiU is one of Sweden's larger academic institutions.

Education, research and PhD training are the missions of the four faculties: Arts and Sciences, Educational Sciences, Health Sciences and Insti-

tute of Technology. Educational focus is on study programs, and the majority of the programs qualify the student for a profession. Education and research is conducted in the twin cities Linköping and Norrköping, situated 150-200 km southwest of Stockholm. These cities are the hub of one of Sweden's most vigorous regions, fast growing and with a highly diversified economy.

Linköping has two educational sites. The largest is Campus Valla, near the Mjärdevi Science Park. Except from Medicine and Health care all education is conducted at Campus Valla. The education in Medicine and Health care is conducted at University Hospital Campus. The Carl Malmsten Center of Wood Technology and Design at LiU is based both in Linköping (research) and Stockholm (undergraduate education). All faculties conduct education and research in the mid-city Norrköping Campus, where the Campus is located in a reclaimed industrial area with spectacular setting and excellent facilities. The distance between the two cities is 45 km, 28 minutes by public transportation. For the students there is a free bus service every hour between the campuses in Linköping and Norrköping.

Eighty percent of the 25000 students are enrolled in 72 study programs. The number of research students is 1300 (PhD) and the Employees 3500.

Organization

Linköping University (LiU) has a unique organization, different from other Universities from the traditional academic organization that has served as a model for most European universities. Instead of being divided into separate faculties as humanities, social sciences, philosophy

etc, Linköping University has created four interdisciplinary faculties: Institute of Technology, Faculty of Health Sciences, Faculty of Educational Sciences and Faculty of Arts and Sciences.

Departments

From the very start in the 1960s an organizational structure was established with departments combining the knowledge bases of several adjacent academic disciplines and often belonging under more than one faculty. The department of Biomedical Engineering is an early example. This structure has fostered a development towards interdisciplinary graduate schools, involving several disciplines and departments. Today there is 14 departments.

Management

The committees and boards of the university consist of representatives of teachers, students, university employees, and – except at the departmental level – professional interests. A faculty board has the overall responsibility for each main area.

Faculties

The four faculties are responsible for education and research within their area. A faculty board runs each faculty, where the dean is chairman. The teachers of each faculty elect the board members. Within each faculty there are special educational and research committees with representatives of various groups: university employees, teachers, students and professional interests.

Having earlier been part of a centralized national system of higher education, Swedish universities and colleges today are considerably autonomous in the field of planning and dimensioning of education.

Student mobility

Each year LiU receives about 1 500 international students. Enrollments in the English-language master's programs have doubled in only four years and contribute to a multiethnic atmosphere on campus and in the classroom.

LiU has bilateral agreements with about 350 universities around the world and participates in all major European Union programs in and outside Europe: Socrates/Erasmus, Socrates-Asian

Link, Socrates Alfa with focus on Latin America, and Tempus, directed towards countries in Eastern Europe and Central Asia.

Strategy, objectives and priorities for the Erasmus activities

The value that LiU places on the Erasmus program is reflected by its prominent role in the university's strategy for internationalization, adopted in 2005. The strategy establishes that LiU shall increase the international mobility of undergraduate and graduate students, as well as faculty and staff, with an annual increase of 10%, in total 50% by the year of 2011, especially by giving priority to the Erasmus program. It is also stated that the formalities for academic cooperation within Europe should be based upon LiU's Erasmus Policy Statement.

In order to implement the goals of the strategy, LiU wishes to reduce organizational and economic barriers for faculty members to facilitate work abroad. LiU shall also offer a wider variety of courses given in English, for both undergraduate and graduate students. Furthermore, LiU is going to establish new networks with European universities and strengthen the central functions in order to give additional guidance to employees who want to take initiatives such as CD or IP.

The Institute of Technology

With a body of more than 9 000 students, a faculty of more than 1 000 employees and a budget exceeding 1 billion SEK, the Institute of Technology is one of Sweden's largest higher engineering education institutions.

During the past few years the Institute has expanded its educational scope to include such programs as Furniture design, Forensic science, Graphic design and communication.

R&D spans from basic engineering science, mathematics and computer science to applied research. Special focus is on continued development in the IT fields of signal processing, automatic control, thin film technology and sensor technology. Other projects on IT and business growth explore organizational dynamics and technical innovation.

An international outlook has always been a hallmark of the Institute, which currently interacts with partner universities in 60 countries. Students and teachers can participate in exchange programs with their peers to broaden global understanding.

Organization of the Technical Faculty

Five Educational committees (study boards) administer the study programs. The Study Board for Media & Computer Science is responsible for fourteen of the study programs. Among them are Information Technology (Master), Media Technology (Master), Computer Technology (Bachelor), Graphic Design & Communication (Bachelor), Advanced Computer Graphics (Master). Every program also has a program advisory board. The study boards purchase the courses needed for each program from different departments specialized in different areas. For the Graphic Design & Communication study program (GDC), courses are bought from six of fourteen departments.

The students can have an influence on the programs and the courses given in several ways. They have representatives in committees at all levels. Evaluations are made by the students in the end of every course, followed by meetings with the teachers discussing the evaluation and what can be done to improve the course.

Graphic design & communication program

Within 10 years many of the people now working in the Graphic Arts industry as well as in Graphic Design Industry will be retired. There will be a need of highly skilled individuals to continue the work in these fields. Also there will be a need for people with the knowledge of merging media and more technical skills. When we started to plan this program there were no similar study program on an academic level in Sweden. GDC leads to a Bachelor Degree of 180 ECTS. It started in autumn 2006. First semester, there were 590 first hand applicants (1300 in all) for 60 student seats. This made the study program one of the 5 most attractive Study Programs in Sweden that year. The second year, 2007, there were 431 first hand applicants (1056 in all), which made the study program the most attractive of its kind. In 2008, there were 421 first hand

applicants, which once again made the study program the most attractive of its kind in Sweden.

Program curriculum

The program is focusing on design and on technical aspects of media production and visual communication. The broad base is a mixture of theory and practical design work in media and techniques, but also a strong academic proficiency. Courses in economy, copyright law and visual communication keep it all together. The program has an outspoken international perspective and collaborates with several universities abroad. When planning the program the aim was to develop competent, creative and communicative professionals prepared to meet today's requirements and are well prepared for tomorrow's needs in graphic design and visual communication.

There are project-based courses in every semester, very often in cooperation with industry partners, where the students can put into practice what they learn in the more theoretical courses.

The syllabus is based on modules in communication, graphic design, media production and management. Most courses are 6 or 8 ECTS. The project courses are more extensive (8-12 ECTS). The second year provides more optional and fewer mandatory courses. In the third year the students select profiles in the fields of graphic design, project management, production coordination or further studies.

Planning the program

The most important organizational prerequisites of the program were the existing competences at the University and previously existing programs in Media Science at Campus Norrköping. Another important base was the already existing cooperation between faculties on study programs, something that made it easier to bring existing competences together.

Other prerequisites were good cooperation with the industry business organizations such as GFF (The Swedish Graphic Companies' Federation) and good connections with local companies in the fields of graphic arts, packaging printing and marketing. Of greatest importance was also to obtain knowledge and information about the

interest of the intended target group.

Both the program and most of its modules are developed in cooperation with the representatives of industry. Companies from the line of business are involved, not only by supplying guest lecturers but also by working with our students in projects throughout the study course. There were representatives from industry in the project group that planned the program. Both Study board and the Advisory board have industry representatives.

Creative Environment

At Campus Norrköping there are four programs with different emphasis on communication, technology, management, economy and media production: Bachelor of Graphic Design & Communication, Master of Science in Media Technology and Engineering, International Master of Science in Advanced Computer Graphics and Bachelor in Culture, Society & Media Production. This opens up for creative meetings. Not only among students, but also among lecturers from different departments and faculties involved in these programs.

Interdisciplinary Faculties

There are several departments and faculties involved in this program. The group researching and teaching in the area of Media in the Department of Science and Technology (ITN) are giving more courses than any other department and host most of the labs and studios where the students spend much time.

Within the Department, the Division Digital Media delivers many of the courses for GDC. Digital Media pursues both fundamental and applied research in a number of diverse fields under the banners of Color Signal Processing, Computer Graphics, Digital Image, Media Technology, Sound Technology and Information Design.

The Department for Studies of Social Change and Culture provides the program with courses in Media Production. It provides a broad take on cultural processes in their societal contexts. Historians and researchers on cultural policies or communication and media work along with researchers on local cultural development.

The Department of Computer and Information Science provides the program with courses in Interaction Design and Programming. They are one

of the largest departments for computer and information science in northern Europe, with approximately 175 employees of which approximately 60 are faculty members (PhDs), including 20 full professors. Approximately 100 postgraduate students are enrolled in the department's PhD programs, including approximately 60 doctoral students holding salaried positions.

Art and Visual Communication is a Division within the Department of Culture and Communication. They offer the program courses in Visual Rhetoric, Visual Culture and Mediated Communication.

The Department of Management and Engineering is one of the largest at our University and two divisions, the Division of Economics and the Division of Industrial Marketing, are providing GDC with courses in Business Economics, Market Communication, Management, Intellectual Property Rights and Entrepreneurship.

The Department of Social and Welfare Studies deliver competences in verbal and written communication in Swedish and is giving courses like Script, Storytelling, Copywriting, Rhetoric and How to write reports.

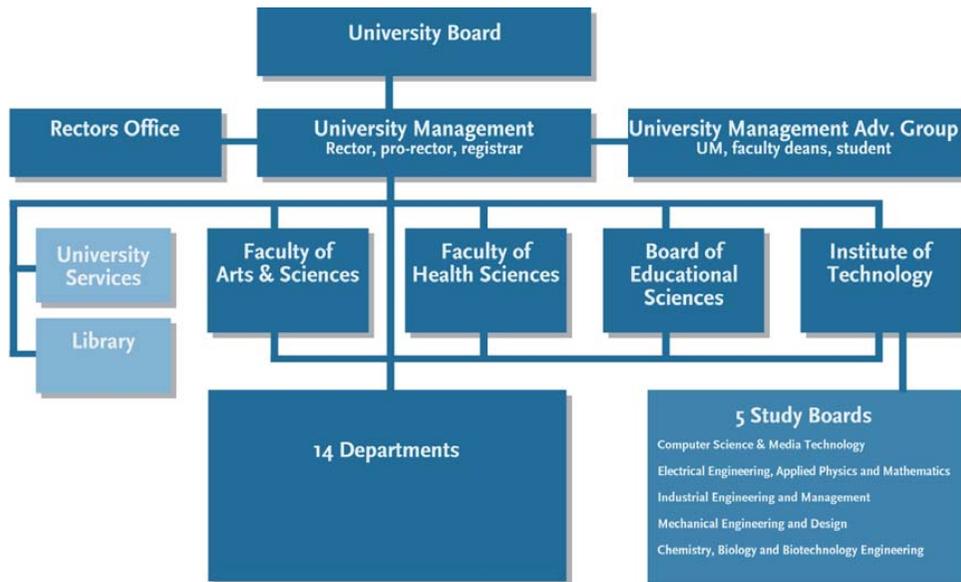
International dimension on Program level

The International dimension is conceived by student exchange, teacher exchange and by elements of international communication and dimensions in the courses. Most of the courses are taught in Swedish, but if international students are present, a selection of courses will be taught in English (30 ECTS in total every semester).

One important task for the board and teachers at the program is future development in terms of international cooperation, student exchange and international network. The students are very eager to go abroad for a semester and the ambition is to offer about 20 of them an international semester at partner universities. For this purpose we are striving to get exchange agreements with 15-20 selected universities/schools in Europe and elsewhere in the world. It is also of great importance that incoming students take courses at our program.

Path to success

- Good connections with the industry for planning and carry out the program. It helps to focus employability, to receive guest lectures, to realize study visits and to cooperate in projects and dissertations.
- Engage devoted teachers and researchers from all disciplines.
- Good learning facilities such as well equipped labs – lots of Macs, many small rooms where project groups can have meetings and work.
- Creative environments where students can interact with students from other study programs, not only in student projects, but also in more private projects.
- The location in a city centre with access to design studios, film studios, Norrköping's Visualization Center, etc.
- International network for Graphic design & publishing, for exchange of experiences and best practices, development of new courses, modules, research projects and so on. The IC (International Circle of Educational Institutes of Graphic Arts - Technology and Management) contributes to fulfill that goal concerning GDC.

Organization of LiU**Some Facts:****The departments:**

- Behavioral Sciences and Learning
- Biomedical Engineering
- Clinical and Experimental Medicine
- Computer and Information Science
- Culture and Communication
- Electrical Engineering
- Mathematics
- Medical and Health Sciences
- Physics, Chemistry and Biology
- Science and Technology
- Studies of Social Change and Culture
- The Tema Institute
- Social and Welfare Studies

Links

<http://www.liu.se/en/>
<http://www.lith.liu.se/en/>
<http://www.lith.liu.se/en/presentation/departments/>
<http://www.itn.liu.se/english/>
<http://dm.itn.liu.se/about>
<http://dm.itn.liu.se/undergraduate?!=en>

(first received: 15.12.08)

**Tommie Nyström**

Linköpings Universitet,
 Department of Science
 and Technology (ITN),
 Digital Image
 Reproduction &
 Electronic Publishing,
 Campus Norrköping

tommie.nystrom@itn.
 liu.se; <http://www.itn.liu.se/~tomny>