Linnæus University

Jnr: FAK 2011/541

Programme syllabus

Faculty Board of Science and Engineering
School of Computer Science, Physics and Mathematics

Informationslogistik, 180 högskolepoäng
Information Logistics Programme, 180 credits

Level
First Level

Establishment of Programme
Established by University board 2009-03-26

Date of Ratification
Approved by Committee for First and Second Cycle under the Faculty Board of Science and Engineering 2009-09-15
The programme syllabus is valid from autumn semester 2010

Revised 2012-02-27

Prerequisites
General entry requirements and Civics A, Mathematics B or Civics 1b / 1a1 +1a2, Mathematics 2a / 2b / 2c (Field-specific entry requirements 5/A5).

Description of Programme

The main area of the program is informatics with focus on information logistics. Information logistics as a discipline emphasizes a process- and logistic view on provision, storage, production and distribution of information and also on achieving an effective information handling.

Information logistics tries to find effective solutions for information handling. The bachelor program is therefore putting great emphasis on giving the students interdisciplinary competence, communication and problem solving abilities and a holistic approach.

The bachelor program qualifies and prepares for further studies in informatics.

Objectives

Knowledge and understanding
For a Degree of Bachelor students must

- demonstrate knowledge and understanding in their main field of study, including knowledge of the scientific basis of the field, knowledge of applicable methods in the field, in-depth knowledge of some part of the field and a general sense of current research issues.

Skills and abilities
For a Degree of Bachelor students must:

- demonstrate an ability to seek, gather and critically interpret information that is relevant to a problem and to critically discuss phenomena, issues and situations;
- demonstrate an ability to independently identify, formulate and solve problems and to perform tasks within specified time limits;
- demonstrate an ability to present and discuss information, problems and solutions in dialogue with different groups, orally and in writing; and
- demonstrate the skills required to work independently in the field that the education concerns.

Judgement and approach
For a Degree of Bachelor students must:

- demonstrate an ability to make assessments in their main field of study, taking into account relevant scientific, social and ethical aspects;
- demonstrate insight into the role of knowledge in society and into people's responsibility for how knowledge is used; and
- demonstrate an ability to identify their need of further knowledge and to upgrade their capabilities.

Programme-specific objectives

Knowledge and understanding
Upon completion of the degree programme, student should:

- demonstrate knowledge about the koncept of information
- demonstrate knowledge on information handling in different types of organizational settings
- demonstrate knowledge on change management and processes for different kinds of problem situations connected to information provision and business processes
- demonstrate knowledge on information logistic solutions for new business areas
- demonstrate knowledge on information logistics requirements concerning language, culture and organizations.

Skills and abilities
After completing the degree programme the students must be able to:

- demonstrate ability to conduct analysis of different information provision processes and suggest new information logistic solutions
- demonstrate ability to model information flows and processes
- demonstrate ability to apply models and methods related to change management and information logistics
- demonstrate ability to participate in qualified work processes for development- and change handling
- demonstrate ability concerning cooperation and independently conducted work
- demonstrate ability to develop new services from an information logistics perspective.

Judgement and approach
After completing the degree program the students must be able to:

- demonstrate ability to analyze and evaluate different information logistic solutions in respect to relevant scientific, societal, economic and ethic aspects
- demonstrate understanding concerning the role of information logistics in different kinds of organizational settings
- demonstrate ability to keep track of knowledge development within the area of information logistics.

Content

Program Overview

The bachelor program is organized and managed by Linnaeus University. Local administration and infrastructure like library, IT, class rooms and similar facilities is provided by Centrum for Information Logistics in Ljungby (CIL). School of Computer Science, Physics and Mathematics at Linnaeus University serves as host for the program. A program coordinator has the overall responsibility for the program.

The program consists of sex terms with focus on theoretical knowledge in information logistics. Term five gives one of the three following alternatives: studies abroad, studies at a national seat of learning or conducting a business based project in Sweden or abroad. The final term includes a degree project of 15 credits.

The initial four terms are aimed to provide essential domain knowledge within the main areas of informatics, logistics and economy/management together with supportive skills/knowledge in theory on organizations and psychology.

Unifying themes on information logistics, optional courses and an initial broad orientation course puts a special character on the program.

The program is based on informatics as main base and combines this with logistics and economy/management. In parallel with theoretical studies the students are following a partner company during the first two years. Through personal meetings and various types of investigations (tasks on courses), theory is compared to practice. The student can normally visit the partner company without personal cost. In term five the student have a choice in selecting of business/organization for the project work. The student is responsible for any travel and other additional expenses in connection to the project work.

The program builds and reinforces knowledge about information logistics in a systematic manner by means of thematic tasks. Such tasks can be found on a total of five courses during the first two years of study. In the course summary below those courses are marked with "theme course."

Theme courses has, as part of other examination forms, a task in which the course content is analyzed and developed in relation to information logistics. The aim is to develop an information logistical approach. In a final course in second year, "Theme information logistics" the theme tasks from the first two years are summed up and analyzed. This course also analyze and summarize the partner company assignments from previous courses.

The first course year one is a general introductory course of 30 credits. This course has four blocks and the aim is to provide a broad base for further studies and also develop practical skills useful for both study and work. Content of the four blocks:

1. Scientific approach
2. Organizations and companies
3. IT systems and use
4. Skills for study and work

The first three blocks contains exercises or tasks focusing on information logistics. The introductory course is followed by four courses with a focus on: information, information logistics, project management and communication.

Year two provides in-depth knowledge about businesses as dynamic, open, developing and changing systems. The courses deal with economics and management, systems development, evaluation and implementation as well as the thematic course on

information logistics as mentioned above. The last course this year is a methodology course including a research review as preparation for the thesis work in year three.

The third year begins with a work placement project on 30credits. The program then concludes with two parallel tracks: thesis work and two elective courses. The elective courses provide students with opportunities to choose courses that support their thesis work. Selection of elective courses is done after consultation and approval from program coordinator.

Program Courses

The courses in the bachelor program are listed below.

Year 1

Introduction to information logistics 30 credits, level G1N *
Subject- and skill introductions for studies in information logistics

Information logistics - problems and solutions, 7.5 credits, level G1N
The concept of information logistics is introduced along with problem areas and possible solutions

The concept of information
7.5 credits, level G1N *(theme course)
Explores and problematizes the concepts of data, information and knowledge

Project Management 7.5 credits, level G1N * (theme course)
Project management using methods and tools

Organization, leadership and cultural perspectives 7.5 hp, level G1N
Theories on organizations and management and analysis of cultural phenomena

Year 2

Business development 7.5 credits, level G1N * (theme course)
Methods and approaches for analysis and change in businesses

Supply chain management 7.5 credits, level G1N
Quality- and information management in production and supplier processes

Data bases: planning, storing and use 7.5 credits, level G1N *
Methods for database planning and storage and conditions for use

Systems Development 7.5 hp, level G2F* (theme course)
Models, methods and tools for information systems development

Business and service development 7.5 credits, level G2F
Information logistics's role in business and service development

Evaluation and implementation 7.5 credits, level G2F* (theme course)
Frameworks and methods for evaluation and implementation

Theme: Information logistics 7.5 credits, level G1F *
Synthesis of theme courses and partner company tasks

Scientific methods and research review 7.5 credits, level G1N
Scientific methods and research review in informatics/information logistics

Year 3

Company-based Project 30 credits, level G2F*
Project work and report writing

Degree Project, 15 credits, level G2E*
Thesis work and seminar processing

Elective course 15 credits

* Main subject informatics.

Work Experience
Companies and public sector have good opportunities to influence on content and organization of the education in information logistics. The influence is channeled through the program board and CIL.

CIL also has an elaborate system for exchange between industry and public sector called Knowledge Exchange Program. The purpose of the program is knowledge and experience exchange between CIL and industry/public sector. The exchange program consists of seminars, student projects and different kinds of research/development projects.

Studies abroad
Linnaeus university has a large number of agreements with universities in Europe, USA, Australia and Asia. These exchange agreements serve as an opportunity platform for students selecting studies abroad during term 5 in the program. The students themselves initiate the exchange studies and to use the opportunities that are offered by the university. The courses that the student chooses to study abroad are to be approved by the program coordinator. A learning agreement must be signed before start of the studies.

Scope of Programme
Concepts as sustainability, genus, cultural variety, ethical aspects and internationalization are all important in both society and education. The courses in the information logistics program are striving to cover these concepts when possible by integrating the themes in discussions on future professional roles.
These activities are especially important as the students during the program have frequent contact with the local businesses and society, which also gives an opportunity to reflect on the requirements of the professional life and what the students' future role will be in this context.

Robust and secure information systems will contribute to a sustainable society and students from the information logistics program will (after completion) be prepared to contribute in this respect.

Quality Development

The quality development is conducted by course evaluations and a yearly program evaluation. Student influence is realized by student participation in education committee, program committee and in different working teams. Summaries of course and program evaluations are stored as official records by the University department.

Degree Certificate

After completing program studies, corresponding to the requirements expressed in the Higher Education Ordinance Degree Ordinance as well as Linnaeus University Local Degree Ordinance, the student may apply for a degree.
Those who have completed the Information Logistics Program may obtain the following degree:
Filosofie kandidatexamen i informatik med inriktning mot informationslogistik
Huvudområde: Informatik
Bachelor of Science with specialization in Information Logistics
Main Field of Study: Informatics

The degree certificate is bilingual (in Swedish/English) and is accompanied by a Diploma Supplement (in English).