Department of Computer and Systems Sciences

Stockholm University

Education plan

for

Bachelor Programme in Computer and Systems Sciences
Data- och systemvetenskapligt kandidatprogram

180.0 Higher Education Credits
180.0 ECTS credits

Programme code:	SYSDK
Valid from:	Autumn 2010
Date of approval:	2009-10-08
Department:	Department of Computer and Systems Sciences

Decision

This program syllabus is approved by the Faculty of Social Sciences at Stockholm's University

Prerequisites and special admittance requirements

Swedish upper secondary school courses Mathematics B and Social Studies A, or equivalent.

Programme structure

The program is divided up in to three years of study.
Year 1 and 2 gives knowledge and skills in basic human-computer interaction, modeling, programming, systems development, systems theory, data communication and data security as well as practical project management.

During year 3 the student has the possibility of studying a subsidiary subject covering 30 ECTS, e.g. business administration, statistics, mathematics, law, criminology and psychology. The student should also assimilate knowledge and skills of research methodology and scientific writing as well as produce a thesis covering 15 ECTS.

The thesis work corresponds to 15 ECTS.

Goals

Knowledge and skills
The student is expected after a completed education to:
- have knowledge about how information systems can support, affect and change organizations and society
- have knowledge about interaction between humans, organizations and information systems
- have knowledge about algorithms, programming languages, architectures, networks and operative systems
- understand basic principles for the coding and transferring of information
- have knowledge about databases, tools and systems development methods
- know about different standards within information technology

Skills and abilities
The student is expected after a completed education to:
- be able to model and analyze complex sociotechnical systems
- be able realize and maintain information systems
- have basic skills to evaluate the performance of different systems- and network solutions
- be able co-operate with people from completely different professions
- have the ability to lead projects

Assessment ability and approach
The student is expected after a completed education to:
- estimate the reliability of product and service suppliers
- estimate and evaluate systems and program solutions
- critically relate to argumentation and assumptions
- carry out work independently
- effectively use time and resources
- identify his/her needs of additional knowledge and develop his/her competence
- carry out an assessment while taking ethical aspects in consideration

Additionally, there are the following general educational objectives:
- to give a scientific base within the main field of study to allow for studies at an advanced level as well as prepare for professional work in the field.
- to develop the students ability to search and assess knowledge in the main field
- to give basic skills in oral and written communication
- to give the student the ability to effectively apply his/her knowledge and skills in a modern and global working life.

Courses

Basics of computer and systems science, 30 ECTS, semester 1
Continuation course in computer and systems science, 30 ECTS, semester 2
Supplementary in computer and systems science, 30 ECTS, semester 3
Specialization in computer and systems science, 30 ECTS, semester 4
Elective course or subsidiary subject, 30 ECTS, semester 5
Method and thesis work, 30 ECTS, semester 6

Degree

The program leads to a bachelor degree in the main field of computer and systems science.