Department of Computer and Systems Sciences

Stockholm University

Education plan

for

Master's Programme in Computer and Systems Sciences
Masterprogram i data- och systemvetenskap

120.0 Higher Education Credits
120.0 ECTS credits

Programme code:	SCSSO
Valid from:	Autumn 2013
Date of approval:	2008-11-27
Changed:	2013-06-11
Department:	Department of Computer and Systems Sciences

Decision

This programme syllabus was approved by the Social Sciences Faculty Board. Revised 2013-06-11

Prerequisites and special admittance requirements

A Bachelor degree or a degree equal to 180 ECTS. A minimum of 90 ECTS within computer and systems sciences (e.g., computer science, systems science, informatics, information systems etc.)

Language requirements: English B or the equivalent

Programme structure

The first semester consists of four compulsory courses. The second semester consists of an advanced compulsory course in Research Methodology for Computer and Systems Sciences and three elective courses. The elective courses are chosen from a list of elective courses in Computer and Systems Sciences covering fields such as information security, business intelligence, global delivery model, information and knowledge systems design and architecture, it management.

During the third semester the student chooses also elective courses from a list provided by the department. The courses offered in the third term are aimed to deepen and broaden knowledge within the above mentioned fields, i.e. information security, business intelligence, global delivery model, information and knowledge systems design and architecture, it management.

The program is completed with a thesis work of 30 credits.

Goals

Knowledge and understanding
The student is expected after a completed education to:
- have in depth knowledge about the interaction between information systems and their environment
- have knowledge about different types of system development methods
- have knowledge about different design and analysis tools
- have knowledge about formal methods, algorithms and programming languages
- understand different aspects of information security and threats
- know about current research fields within modern information technology (IT)

Skills and abilities
The student is expected after a completed education to:

- have the ability to analyze and design models
- be able to design and analyze algorithms
- be able to work with different support tools
- formulate, plan and carry out systems development project
- based on solid grounds, choose a method for studying a specific problem
- systematically be able to evaluate the work of others

Judgement ability and approach
The student is expected after a completed education to:
- have the ability to assess the quality of different systems development approaches and models
- be able to assess effectively in a systems development project
- have a notion about coming trends within the subject area
- have the ability to identify the need of additional knowledge
- be able to observe ethical aspects and consequences of an IT project
- be able to critically evaluate methods within the IT field
- understand and reflect over general questions within the IT field

Additionally, there are the following general educational objectives:
- to give a scientific base within the main field of study to allow for studies at the research level
- to develop the students ability to search and assess knowledge in the main field at a scientific level
- to give basic skills in oral and written communication
- to give skills in communication, in terms of oral skills as well as writing skills, within an international, scientific community.

Courses

First semester
Enterprise Computing and ERP Systems, 7,5 credits
Introduction to Information Security, 7,5 credits
Data Mining in Computer and System Sciences, 7,5 credits
Scientific Communication and Research Methodology, 7,5 credits

Second semester
Research Methodology for Computer and Systems Sciences, 7,5 credits
Three elective courses (7,5 credits each) from a list provided by the department

Third semester
Four elective courses (7,5 credits each) from a list provided by the department

Fourth semester
Master Thesis in Computer and Systems Sciences, 30 credits

Degree

The programme leads to a Degree of Master of Science in the main field of study: Computer and Systems Sciences.

Misc

Students who have been admitted to the program but have not finished the program during the two years period may ask to finish the program even after the program is ended. In this case limitations specified in the courses syllabi are applied.
The language of tuition is English