Department of Education

Stockholm University

Syllabus

for course at first level

Educational Perspective on ICT and Computer Science
Datadidaktik

7.5 Higher Education Credits
7.5 ECTS credits

Course code:	UDK200
Valid from:	Spring 2009
Date of approval:	2009-01-30
Department	Department of Education
Subject	Didactics

Decision

This syllabus is approved by the Head of Department of Didactic Science and Early Childhood Education, Jan. 30, 2008.

Prerequisites and special admittance requirements

Course structure

Examination code	Name	Higher Education Credits
EXA1	Perspective on ICT and Computer Science as educational field	3
EXA2	ICT and Computer Science, teaching and learning	4.5

Course content

The course comprises Curriculum Theory, regulatory documents for secondary school and sixth form college, and planning and carrying out IT/Computer lessons. The development of curriculum design within computer science for secondary school and sixth form college are important sections of the course. ICT as support in teaching related areas for documentation, communication, and publication is also trained. Formative and summative assessment is included. The course is divided into two parts. 1) Perspectives on ICT and computer training in school, 3 ECTS. 2) The subject of computer science, teaching, and learning, 4.5 ECTS including 1.5 ECTS of Teacher Training Placement (TTP).

Part 1 comprises the following: Introduction to computer science curriculum theory from a developing point of view; the what, how, why, and for whom of computer science as a subject; regulatory documents for secondary school and sixth form college; formative and summative assessment.

Part 2 comprises the following: ICT/Computer science as a field of study and research; planning and curriculum design for teaching moments in programming and computer science studies based on design for learning theories as well as the regulations' aims and guidelines; carrying out and evaluating lessons during the TTP; formative and summative assessment.

Learning outcomes

After finishing the course, the student is expected to be able to: present design for learning theories and their importance for teaching IT/computer science; plan, test, and evaluate a minor lesson for a group of students using the regulations' aims and guidelines for sixth form college.

Education

The course comprises lectures, seminars, presentations and Teacher Training Placement. Integrated in the course are theoretical studies and laboratory assignments. Course literature seminars, laboratory assignments and project work demand active preparation. A web based teaching platform is used during the course. Participation in all lessons is compulsory. If there are special reasons, the teacher may grant special leave from parts of the compulsory lessons.

Forms of examination

a. The course is graded through individual and group written and oral presentations.

b. Student achievement is graded on a scale ranging from A to F as follows: A = Excellent, B = Very Good, C = Good, D = Satisfactory, E = Adequate, Fx = Insufficient, F = Fail.

c. Grading criteria for the course will be distributed at the start of the course.

d. A minimum grade requirement of E as well as an approved Teacher
Training Placement are required to pass the course and compulsory participation in lessons.

e. A student who has received the grade of Fx or F on an examination has the right to redo the examination up to four times as long as the course is offered, in order to
achieve a minimum grade of E. A student who has received a grade of E or higher may not redo the examination in order to receive a higher grade. A student who has received the grade of F or Fx twice on a given test and by the same examiner can, on application, be granted a new examiner. The application should be addressed to the board of the department. A student who has been failed on a Teacher Training Placement has the right to a second training period but not more than a total of two Teacher Training Placement periods.

Interim

Students may request that the examinations are carried out in accordance with this syllabus even after is has ceased to apply. This right is limited, however, to a maximum of three occasions during a two-year period after the course has ended. A request must be made to the board of the department. All compulsory course segments are
included in the term 'examination'.

Misc

The course is a part of the Master of Science in Engineering and of Education programme.

Required reading

Compulsory Literature:

Aspelin, Jonas (2005). *Zlatan, Calligula och ordningen i klassrummet.* Lund: Studentlitteratur. (266 p.)

Birch Andreasen, Lars, Meyer, Bente & Rattleff, Pernille (red),(2008). *Digitale medier og didaktisk design, Brug erfaringer og forskning*. Danmarks Pedagogiska Universitetsforlag. (258 p.)

Rostvall, Anna-Lena & Selander, Staffan (red) (2008). *Design för lärande*. Stockholm: Nordsteds akademiska förlag. (269 p.)

Skolverket (2000). *Programmål och Kursplaner för bl.a. Teknikprogrammet*. (30 p.)(electronic resource)

Åkerlund, Dan (2008). *Publicistiska arbetssätt i skolan*. Lund: Studentlitteratur. (222 s.)

Other literature and texts, approx. 200 pages.