

Syllabus

for course at first level

Software Engineering
Mjukvaruutveckling

7.5 Higher Education
Credits
7.5 ECTS credits

Course code:	DA4002
Valid from:	Autumn 2020
Date of approval:	2020-01-13
Department	Department of Mathematics (incl. Math. Statistics)
Main field:	Computer Science
Specialisation:	G1F - First cycle, has less than 60 credits in first-cycle course/s as entry requirements

Decision

This syllabus has been approved by the Board of the Faculty of Science at Stockholm University, October 8, 2012.

Prerequisites and special admittance requirements

For course admission knowledge equivalent to Computer Science II, FL, 15 HECs (DA3001) (the part on Object Oriented Programming), or Object Oriented Programming, FL, 7.5 HECs (DA3002), is required.

Course structure

Examination code	Name	Higher Education Credits
THEO	Theory	3
PROJ	Project	4.5

Course content

The course covers: Systematic principles of design of correct and robust programs, life cycle models, the documentation standard PPS-05, project organisation and planning, project risk, and software requirements capture and analysis. Production of project planning document (PPD) and user requirements document (URD). Planning, requirements capture and analysis for, and implementation and documentation of, a large software engineering project in collaboration with a company or researcher.

Learning outcomes

After taking the course the student shall be able to:

- describe different development methods for software,
- apply appropriate methods for design and implementation in modern software development,
- apply established principles of production of the documentation that is necessary for planning, implementation and delivery of software development projects,
- work in large software development project groups, where the individuals have different roles.

Education

The education consists of lectures and seminars.

Participation in seminars and group education associated with this is compulsory. An examiner may rule that a student is not obliged to participate in certain compulsory education, if there are special grounds for this,

after consultation with the relevant teacher.

Forms of examination

a. Examination for the course is in the following manner: measurement of knowledge takes place through written and oral assignments, and written and oral presentation of the programming development project.

b. Grading is carried out according to a 7-point scale related to learning objectives:

A = Excellent

B = Very Good

C = Good

D = Satisfactory

E = Sufficient

Fx = Fail

F = Fail

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

d. A minimum grade of E is required to pass the course, together with participation in all compulsory education.

e. Students who receive a failing grade on a regular examination are allowed to retake the examination as long as the course is still provided. The number of examination opportunities is not limited. Other mandatory course elements are equated with examinations. A student who has received a passing grade on an examination may not retake the examination to attain a higher grade. A student who has failed the same examination twice is entitled to have another examiner appointed. Such requests should be made to the departmental board. The course has at least two examinations for each academic year in the years in which instruction is provided. Intervening years include at least one examination.

f. Students awarded the grade Fx are given the opportunity to improve their grade to E. The examiner decides the supplementary assignments to be performed and the pass mark criteria. The supplementary assignments will take place before the next examination session.

Interim

Students may request that the examination is carried out in accordance with this syllabus even after it has ceased to apply. This right is limited, however, to a maximum of three occasions during a two-year-period after the end of giving the course. A request for such examination must be sent to the departmental board. The provision also applies in the case of revisions to the course plan.

Limitations

The course may not be included in a degree together with the course Software Engineering and Project Work, FL (DA3011), Software Engineering and Project Work, FL (DA3005), First Degree Programme in Mathematics-Computer Science, Computer Science Branch, 3rd year (NA8650), Computer Science, Intermediate Course II (NA2030), or the equivalents.

Misc

The course is a component of the Bachelor's Programme in Computer Science, and it can also be taken as an individual course.

Required reading

Course literature is decided by the departmental board and is described in an appendix to the syllabus.