ID1303 Programming II, Java 7.5 credits

Programmering II, Java

This is a translation of the Swedish, legally binding, course syllabus.

Establishment

Course syllabus for ID1303 valid from Autumn 2009

Grading scale

A, B, C, D, E, FX, F

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

General admission requirements including documented proficiency in Swedish B and english A or equivalent

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

The course develops the students programming abilities so that he/she can solve various tasks with the help of a computer. The course also lays a foundation for further studies in software engineering.

The student will be able to:

- use existing hierarchies of classes and interfaces in different contexts
- identify hierarchical structures of classes and interfaces in concrete situations
- create well organized hierarchies of classes and interfaces, and use them in concrete applications
- use existing type-independent structures and create own ones
- use existing graphical objects and produce own ones
- create well organized graphical user interfaces
- develop appropriate threads for different goals, and synchronize the activities of these threads
- create programs that communicate via Internet, and develop appropriate servers

Course contents

- Inheritance, polymorphism, class-hierarchies, interface and type-independent structures
- Graphics
- Graphical user interface
- Threads, synchronizing of threads, and communication between threads
- Programs that communicate via Internet, and different types of servers

Disposition

Two work-forms are used in this course: lectures and laborations. In a lecture (for all students) different concepts are introduced and developed, and these concepts are illustrated with appropriate examples. The teacher and the students discuss these concepts.

A laboratory work further develops the concepts that were developed in the lectures. The student solves different problems with the help of a computer, and in that way verifies and deepens his/her knowledge and abilities. To be able to actively participate at the laboratory work, the student has to make all necessary preparations in advance.

Course literature

Preliminary:

- Galjic Fadil: Programmeringsprinciper i Java, del 2 (Edition: 1), Studentlitteratur, Lund, 2006, 91-44-03595-0

- Galjic Fadil: Programmeringsprinciper i Java, exempelsamling, del 2 (Edition: 1), Studentlitteratur, Lund, 2006, 91-44-03820-8

- Galjic Fadil: Programmeringsprinciper i Java, övningsbok, del 2 (Edition: 1), Studentlitteratur, Lund, 2006, 91-44-03818-6

Examination

- TEN1 - Examination, 3.0 credits, grading scale: A, B, C, D, E, FX, F
- LAB1 - Laboratory Work, 4.5 credits, grading scale: A, B, C, D, E, FX, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

If the course is discontinued, students may request to be examined during the following two academic years.

During the course the student does and presents a certain amount of example-program. An exam is done in the end of the course. To be able to do the examination the student must present all the example-programs first.
One grade is given for the example-programs, one for the final examination, and then one final grade for the course as a whole. Both for the grade for the example-programs and the final examinations the actual grading scale (A, B, C, D, E, Fx, F) is used.

The final grade for the whole course is a rounded mean value of the grade for the examination and the grade for the example-programs (the mean value rounds up).

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.