Linnæus University

Course syllabus

Faculty Board of Science and Engineering
School of Computer Science, Physics and Mathematics

4DV103 Programutveckling - projekt, 7,5 högskolepoäng
Software Technology Project, 7.5 credits

Main field of study
Computer Science

Subject Group
Informatics/Computer and Systems Sciences

Level of classification
Second Level

Progression
A1F

Date of Ratification
Approved by the Board of the School of Computer Science, Physics and Mathematics 2009-09-08

Revised 2010-08-04. Revision of prerequisites and course evaluation.

The course syllabus is valid from spring semester 2011

Prerequisites
90 credits in Computer Science or equivalent.

Expected learning outcomes
Upon completion of the course, the student should be able to:

- describe the concepts robustness and re usability in the context of object-oriented system design
- design and develop robust and reusable software systems
- experimentally, by testing and benchmarking, evaluate the quality of a software system.

Content
This is a practical programming course. The goal is to design a robust and reusable Java library. The actual task (e.g. a graph library) changes from one year to another.
The course covers the following topics:

- Project management
- Object-oriented design
- Specification techniques
- Software testing
- Benchmarking

- Theory related to the selected application domain (e.g., graph theory).

Type of Instruction

Lectures, seminars and self studies.
The main part of the course is devoted to work in groups to jointly develop a Java class library.

Examination

The course is assessed with the grades Fail (U), Pass (G) or Pass with Distinction (VG).
Written and practical assignments which are presented orally and/or in written form.
The assessment method will be decided at the start of the course.

On request, students may have their credits translated to ECTS-marks. Such a request must be sent to the examiner before the grading process starts.

Course Evaluation

A course evaluation will be carried out at the end of the course in accordance with the guidelines of the University. The result of the course evaluation will be filed at the department.

Required Reading and Additional Study Material

Required reading
Relevant literature will be selected, together with the supervisor and the examiner.