Linnæus University

Course syllabus

Faculty of Technology
Department of Computer Science and Media Technology

1DV601 Objektorienterad programvaruteknik, 15 högskolepoäng
Object-Oriented Software Engineering, 15 credits

Main field of study
Computer Science

Subject Group
Informatics/Computer and Systems Sciences

Level of classification
First Level

Progression
G1F

Date of Ratification
Approved by Faculty of Technology 2014-10-03
The course syllabus is valid from autumn semester 2015

Prerequisites
Problem Solving and Programming 7.5 credits (1DV006) or equivalent.

Objectives

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

- describe and explain concepts and principles of object oriented software development
- describe and explain fundamental theories, techniques and methods in software engineering
- master basic object oriented modelling principles
- describe and explain basic concepts and constructs in the Java programming language
- implement programs in the Java programming language
- individually, or in teams, perform specific software development task; collecting and analysing requirements; develop and evaluate a design; test and document an implementation
- individually, or in teams, perform a software development project using object oriented technology

Content
The course covers:

- object oriented programming in Java
- object oriented modeling in UML
- software engineering processes
- project planning and control
- basic principles of software reuse and maintenance
- requirements engineering
- object oriented analysis
- object oriented design
- software testing

Type of Instruction
Teaching consists of lectures, seminars and practicals. The course also includes a software development project. Practicals are carried out individually or in groups. Attendance at some activities is mandatory.

Examination
The course is assessed with the grades A, B, C, D, E, Fx or F.
The grade A constitutes the highest grade on the scale and the remaining grades follow in descending order where the grade E is the lowest grade on the scale that will result in a pass. The grade F means that the student's performance is assessed as fail (i.e. received the grade F).

Assessment of the students performance is made through writ-ten or oral tests and/or the presentation of compulsory practi-cal assignments. The types of assessment used will be decided upon, at the beginning of the course.
Students who do not pass the regular examination are given the opportunity to do a resit examination shortly after the regular examination.

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.

Credit Overlap
The course cannot be included in a degree along with the following course/courses of which the content fully, or partly, corresponds to the content of this course:1DV101 Object-Oriented Software Engineering, 15 credits

Other
Grade criteria for the A–F scale are communicated to the student through a special document. The student is to be informed about the grade criteria for the course by the start of the course at the latest.

Required Reading and Additional Study Material
Required reading
Sommerville, I, *Software Engineering 8th Ed.*, Addison-Wesley, (2007). Pages 600 (800).
Booch, G, *Object-Oriented Analysis and Design with Applications, 3rd Ed.*, (2007). Pages 500 (720).