Object Oriented Programming and Java

Programme course

7 credits

Objektorienterad programmering och Java

TDDE30

Valid from: 2019 Spring semester

Determined by
Board of Studies for Computer Science and Media Technology

Date determined
2018-08-31

Main field of study
Computer Science and Engineering, Computer Science

Course level
First cycle

Advancement level
G1X

Course offered for
- Master of Science in Computer Science and Engineering

Entry requirements
Note: Admission requirements for non-programme students usually also include admission requirements for the programme and threshold requirements for progression within the programme, or corresponding.

Prerequisites
Basic knowledge in programming. Practical programming experience in Python, corresponding to (for example) the course Functional and Imperative Programming part 1 and part 2.

Intended learning outcomes
After the course, the student will be able to:

- Explain and apply basic concepts of object oriented programming, e.g. classes, instances..xxx
- Understand and draw class diagrams using the UML standard.
- xxx
- Implement object oriented programs in Java.
- xxx

Course content

xxx

- Object oriented programming concepts, such as classes, instances, messages, methods, polymorphism, instance variables and inheritance.
- Design principles and design patterns, specially the use of polymorphism and inheritance vs. delegation.
- Class diagrams in UML.
- The Java programming language and the most important class libraries, including programming of simple graphical user interfaces.

Teaching and working methods

The course consists of laboratory assignments and a programming project.

Examination

UPG1	Written assignment	1 credits	U, G
LAB1	Laboratory work	3 credits	U, G
PRA1	Project assignment	3 credits	U, 3, 4, 5

Grades

Four-grade scale, LiU, U, 3, 4, 5

Department

Institutionen för datavetenskap

Director of Studies or equivalent

Peter Dalenius

Examiner

Jonas Kvarnström

Education components

Preliminary scheduled hours: 66 h
Recommended self-study hours: 121 h

Course literature

Other

A book about Java och object oriented programming. To be announced before course start.

Lecture notes and othe material will be available online.