#### **SYLLABUS**

# Object oriented analysis and design 7.5 credits D0039D

**Objektorienterad analys och design** 

Course syllabus admitted: Autumn 2019 Sp 1 - Present

DECISION DATE 2019-02-15



# **Object oriented analysis and design 7.5 credits D0039D**

#### **Objektorienterad analys och design**

First cycle, D0039D

Education level First cycle Grade scale GU345 **Subject** Datalogi Subject group (SCB) Computer Technology

#### **Entry requirements**

In order to meet the general entry requirements for first cycle studies you must have successfully completed upper secondary education and documented skills in English language

# Selection

The selection is based on 1-165 credits.

### Examiner

Robert Brännström

# **Course Aim**

After the course, the student

1. has knowledge about a) the scientific foundation of Object-oriented Programming and Design and b) the proven

experience programmers in this field of Computer Science;

2. has the capacity for carrying out teamwork and collaboration with various constellations, both in groups where

the students choose whom to work with and in groups put together by others;

3. can create, analyse and critically evaluate various technical solutions in terms of the design and implementation

of large computer programs by using a modern object-oriented programming language;

- 4. can plan and use appropriate methods to undertake advanced programming tasks within predetermined parameters;
- 5. can present and discuss information, problems and solutions both verbally and in textual form

# Contents

This course provides deeper theoretical knowledge of object oriented programming (analysis, design, implementation and test).

Abstraction, encapsulation and object relations, design patterns, writing code, version control. Software development processes and documentation. Working environment and gender mainstreaming.



#### Realization

Each course occasion's language and form is stated and appear on the course page on Luleå University of Technology's website.

The course consists of lectures and laboratory work. Laboratory work are written in an object oriented language.

# Examination

If there is a decision on special educational support, in accordance with the Guideline Student's rights and obligations at Luleå University of Technology, an adapted or alternative form of examination can be provided.

Examination consists of a final written exam and mandatory programming assignments during the course:

- 1. Final written exam. Individual lab assignments;
- 2. Lab assignments carried out in groups;
- 3. Final written exam. Individual lab assignments;
- 4. Final written exam. Individual lab assignments;
- 5. Lab assignments.

# Literature. Valid from Autumn 2011 Sp 1

Webbaserat material

#### **Course offered by**

Department of Computer Science, Electrical and Space Engineering

## **Modules**

Code	Description	Grade scale	Cr	Status	From period	Title
0003	Written exam	G U 3 4 5	3	Mandatory	A14	
0004	Laboratory work	U G#	4.5	Mandatory	A14	

# Study guidance

Study guidance for the course is to be found in our learning platform Canvas before the course starts. Students applying for single subject courses get more information in the Welcome letter. You will find the learning platform via My LTU.



#### **Last revised**

by Jonny Johansson, HUL SRT 2019-02-15

# Syllabus established

Kursplanen är fastställd av LTU Skellefteå 2008-11-19 att gälla fr o m H09.

