

SYLLABUS

Objectoriented programming 7.5 credits D0007N

Objektorienterad programutveckling

Course syllabus admitted: Autumn 2015 Sp 1 - Present

**DECISION DATE
2015-02-16**

Objectoriented programming 7.5 credits D0007N

Objektorienterad programutveckling

First cycle, D0007N

Education level	Grade scale	Subject	Subject group (SCB)
First cycle	U G VG	Datalogi	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 and Basic knowledge of computer programming.

Selection

The selection is based on 1-165 credits.

Examiner

Ingemar Andersson

Course Aim

After completed course the student should know how to:

- Designing an object-oriented application in accordance with accepted systems development methodology
- Implement a data-driven multi-tier application in an object-oriented software development environment as Java
- Reflect on reusability and coupling between the application's components with the impact of changes in perspective

Contents

As an application developer you are expected to be able to apply techniques for the design of object-oriented applications. This is a programming course where students learn to implement object-oriented applications using the platforms Java SE and Java EE that communicates with a relational database. The course assumes basic knowledge of SQL and databases .

Examples of modules in the course:

- Using design patterns to facilitate reuse of classes
- Implementing applications with graphical user interfaces
- Designing and implementing applications that handle data in a relational database
- Using techniques for mapping between properties in a class and attributes in a relational database
- Constructing component-based applications with centralized business logic according to Model View Control (MVC) architectures
- Construct a Web-based Java EE application
- Design and implementation of Web Services

Realization

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

Distance tuition (Internet) with compulsory meetings. All the communication between students and between students and teachers are handled through a web based learning platform and e-mail. The same platform may be used for submissions of assignments. The course contains a number of compulsory assignments

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.

Written examination 4 hp

Report and presentation 3,5 hp

Remarks

Required: A PC with Windows XP and ability to install programs. Internetconnection (at last 1 Mbps). Headset with a microphone and a web-cam.

Overlap

The course D0007N is equal to IED412, D0024E

Literature. Valid from Autumn 2007 Sp 1

Deitel & Deitel, Java How to program, Last edition. E-books.

Course offered by

Department of Computer Science, Electrical and Space Engineering

Items/credits

Number	Type	Credits	Grade
0001	Examination	4	U G VG
0002	Compulsory assignment	3.5	U G#

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 2015-02-16

Syllabus established

by Institutionen för industriell ekonomi och samhällsvetenskap 2007-02-28