

SYLLABUS

Software Development with Java II 7.5 credits D0024E

Programutveckling med Java II

Course syllabus admitted: Autumn 2023 Sp 1 - Present

**DECISION DATE
2021-06-16**

Software Development with Java II 7.5 credits D0024E

Programutveckling med Java II

First cycle, D0024E

Education level	Grade scale	Subject	Subject group (SCB)
First cycle	U G VG *	Systemvetenskap	Informatics/Computer and Systems Sciences

Main field of study

Information Systems Sciences

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 Added to that, you must have studied databases, systems development, and programming equivalent to D0019N Software development with Java, D0006N Object-Oriented Analysis and Design, and D0005N Databases II or equivalent courses.

Selection

The selection is based on 1-165 credits.

Course Aim

After the course the student should be able to:

- Design an object-oriented application in accordance with accepted system development methods
- Implement a data-driven multilayer application in Java Reflect on reusability and connection between the parts of the application

General skills according to the Higher Education Ordinance:

- Demonstrate knowledge and understanding within the main area of the education: Applicable methods, in-depth study in some part
- Demonstrate the ability to search, collect, evaluate and critically interpret relevant information in a problem statement
- Demonstrate the ability to independently identify, formulate and solve problems and to carry out tasks within given time frames

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 Java platform 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) architecture

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. All students, both on distance and campus, write the individual exam online, webcam and microphone are required.

Report and presentation 3,5 hp

Unauthorized aids during exams and assessments

If a student, by using unauthorized aids, tries to mislead during an exam or when a study performance is to be assessed, disciplinary measures may be taken. The term "unauthorized aids" refers to aids that the teacher has not previously specified as permissible aids and that may assist in solving the examination task. This means that all aids not specified as permissible are prohibited. The Swedish version has interpretative precedence in the event of a conflict.

Remarks

Required: A computer and ability to install programs. Internet connection (at least 0.5Mbps). Headset with a microphone and a web-cam.

Overlap

The course D0024E is equal to D0007N

Course offered by

Department of Computer Science, Electrical and Space Engineering

Modules

Code	Description	Grade scale	Cr	Status	From period	Title
0001	Examination	U G VG *	4	Mandatory	S18	
0002	Compulsory assignment	U G#	3.5	Mandatory	S18	

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 2021-06-16

Syllabus established

by Jonny Johansson, HUL SRT 2017-02-15