



## Course syllabus

Faculty of Technology

Department of Computer Science and Media Technology

1DV535 Introduktion till apputveckling med Flutter, 7,5 högskolepoäng

1DV535 Introduction to App Development with Flutter, 7.5 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 2022-12-19

The course syllabus is valid from spring semester 2023

### **Prerequisites**

Introduction to programming, 7.5 hp (1DV501) or similar

## Objectives

After completing the course, the student should:

*Knowledge and understanding*

- A.1 have knowledge about the programming language Dart for Flutter,
- A.2 be able to explain how a mobile app can be created using Flutter, as well as
- A.3 be able to explain how Flutter uses widgets to build a mobile app.

*Ability and skills*

- B.1 be able to create a design for a mobile app using Flutter,
- B.2 be able to use widgets for building a mobile app in Flutter, as well as
- B.3 be able to implement state, navigation and interaction in Flutter.

*Evaluation and Approach*

- C.1 be able to reason about the pros and cons of using Flutter for developing

apps.

## Content

The course will give an introduction to understanding how apps for mobile phones can be developed using Flutter. The framework Flutter is built on top of the programming language Dart which will also be covered. An app in Flutter consists of widgets and the course covers them and how they are used to build an app. The students will also create a number of simpler apps using Flutter.

- Introduction to Flutter, Dart and app development
- Widgets in Flutter
- State in apps
- Interaction
- Gallery of different widgets that can be used in Flutter
- Navigation between different parts of the user interface

## Type of Instruction

The teaching consists of pre-recorded lectures and tutoring sessions via distance tools. Programming tasks are done individually.

## Examination

The examination of the course is divided as follows:

Code	Designation	Grade	Credits
2301	Programming task 1	U/G	2,00
2302	Programming task 2	U/G	2,00
2303	Project task	AF	3,50

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).

The examination consists of two programming tasks, for which only code is needed, as well as a project. For the project, the student needs to record a presentation and also reflect on the process and app development at large.

Repeat examination is offered in accordance with Local regulations for courses and examination at the first and second-cycle level at Linnaeus University. If the university has decided that a student is entitled to special pedagogical support due to a disability, the examiner has the right to give a customised exam or to have the student conduct the exam in an alternative way.

## Objectives achievement

The examination elements are linked to the course objectives in the following ways:

Goal	2301	2302	2303
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A.1			<input checked="" type="checkbox"/>
A.2			<input checked="" type="checkbox"/>
B.1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.3		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
C.1			<input checked="" type="checkbox"/>

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### Course Evaluation

During the implementation of the course or in close conjunction with the course, a course evaluation is to be carried out. Results and analysis of the course evaluation are to be promptly presented as feedback to the students who have completed the course. Students who participate during the next course instance receive feedback at the start of the course. The course evaluation is to be carried out anonymously.

### 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:

Biessek, Alessandro, Flutter for Beginners, latest edition. Packt, 2019 (ISBN: 9781788996082). Pages: 300 of 500.